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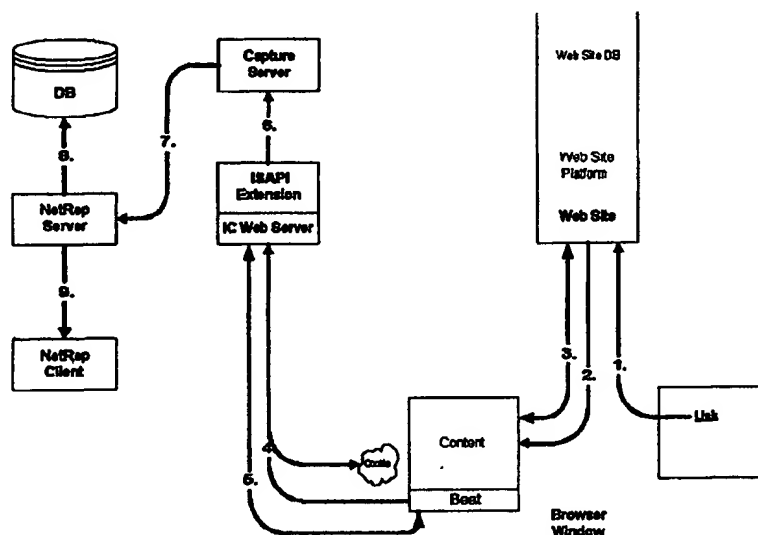
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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/US00/00067  <b>(22) International Filing Date:</b> 4 January 2000 (04.01.00)  <b>(30) Priority Data:</b> 60/114,644                      4 January 1999 (04.01.99)                      US  <b>(71) Applicant (for all designated States except US):</b> ICON-TACT.COM, INC. [US/US]; William G. Christie, CEO, 55 Walls Drive, Suite 401, Fairfield, CT 06430 (US).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> CHRISTIE, William, G. [US/US]; Icontact.com, Inc., 314 Hemlock Hills North, Fairfield, CT 06430 (US). GOLDBERG, Perry, S. [US/US]; Icontact.com, Inc., 3514 North Wilton Avenue, Chicago, IL 60657 (US). VIEBACH, John, J. [US/US]; Icontact.com, Inc., 96 Gant Circle, Apt. F, Streamwood, IL 60107 (US). DES JARDINS, Philip, A. [US/US]; Icontact.com, Inc., 3N 166 Springdale Road, West Chicago, IL 60185 (US). ENTZMINGER, Lindell, B., III [US/US]; Icontact.com, Inc., Tower 3 - Suite 1401, 605 West Madison, Chicago, IL 60661 (US). PASEK, Marcin, S. [US/US]; Icontact.com, Inc., 765 Waikiki, Apt.2, Arlington Heights, IL 60016 (US).		<b>(74) Agent:</b> GILMAN, Philip, A.; Kramer Levin Naftalis & Frankel LLP, 919 Third Avenue, New York, NY 10022 (US).  <b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i>

**(54) Title:** PROCESS AND SYSTEM FOR READING CONTENTS OF AN ELECTRONIC SHOPPING CART

**(57) Abstract**

A system and method whereby a customer service representative of a company can initiate communications over an electronic network with a customer browsing an e-commerce web site of that company. A NetRep client application indicates the presence and status of each customer browsing an e-commerce web site, including a history of visited web pages and a shopping cart. Filters may be employed which differentiate certain customers for customer support. The NetRep client includes a dynamic knowledge base of selected pre-set messages to the customer depending on their status or history. Additionally, the NetRep can initiate a conversation or push a web page to the customer's browser and can interactively participate with the customer in the correct filling out of a form.

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## **PROCESS AND SYSTEM FOR READING CONTENTS OF AN ELECTRONIC SHOPPING CART**

### **CROSS REFERENCE TO RELATED APPLICATIONS**

5 The present application claims the priority benefit of United States Provisional  
Application Serial No. 60/114,644, filed January 4, 1999; and is a C-I-P of United States  
Application Serial No. 09/167,054, filed October 6, 1998, which claims the priority benefit of  
United States Provisional Application Serial No. 60/061,166, filed October 6, 1997.

### **BACKGROUND OF THE INVENTION**

10 The invention relates to processes and systems for interactively monitoring the  
presence of a customer on an e-commerce web site, communicating with the customer in real  
time, and cooperatively completing an e-commerce transaction with the customer.

The World Wide Web on the Internet has developed into a major channel of  
trade. Numerous businesses have established web sites through which they offer their goods  
and services. A customer viewing the Web pages of the business may select from among the  
15 goods or services offered by the merchant and arrange to pay for them, generally using a  
credit card or the like. The entire transaction may be completed electronically, without the  
need for the customer to physically visit the business. Furthermore, a direct telephone  
connection between the customer and the business is generally unnecessary and the only  
connections needed are the customer's and the businesses' connection to the Internet.

20 A major disadvantage of the Internet based transaction is the inability for the  
customers (who express an interest in the products or services of business simply by their  
presence at the Web site) to obtain answers to questions they may have. Another  
disadvantage is the inability of the business to monitor and track the progress of the customer  
through the various pages of the Web site. Another disadvantage is the inability for the  
25 business to initiate communication with the customer while the customer is at the Web site.

There thus continues to be a need for interactive communication with a  
customer at a business's Web site which allows a representative of the business to initiate  
communication with the customer and can be used to facilitate e-commerce.

### **SUMMARY OF THE INVENTION**

A system and method whereby a customer service representative of a company (a "NetRep") can initiate communications over an electronic network with a customer browsing an e-commerce web site of that company is disclosed. A client application (the "NetRep Client") indicates the presence and status of each customer browsing an e-commerce web site of a company, including a history of visited web pages and a current shopping cart. Filters may be employed which differentiate certain customers as candidates for customer support from the NetRep. The NetRep Client includes a dynamic programmed response area (a knowledge base) of selected pre-set messages to the customer depending on the customer's current status or history. Additionally, the NetRep can initiate a conversation or push a web page to the customer's browser and can interactively participate with the customer in correctly filling out a form on the web site. A server application (the "NetRep Server") can access a database of previous visits of an identified customer to the web site and display such information on the NetRep Client.

Knowledge of the presence of the customer and the ability to track their web page history and shopping cart is provided by including an invisible (or virtually invisible) frame on each web page to be tracked in the web site. The frame executes a PUSH function from the customer's browser every so often which updates the NetRep Server with such information.

The invention, accordingly, comprises the several steps and the relation of one or more of such steps with respect to each of the others, and the system embodying features of construction, combinations of elements and arrangement of parts which are adapted to affect such steps, all as exemplified in the following detailed disclosure, and the scope of the invention will be indicated in the claims.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

For a full understanding of the invention, reference is had to the following description taken in connection with the accompanying drawings in which:

Figure 1. shows a screen image of one typical web site shopping cart in an embodiment of a method of the invention;

Figure 2. shows a screen image of the NetRep client application of one embodiment of the method of the invention used by the customer service or network representative (including the NetRep) of the sponsor of the web site initially while tracking the shopping process;

Figure 3. shows a screen image of one typical web site order form in an embodiment of a method of the invention;

Figure 4. shows a screen image of the client application of Figure 2. indicating that a transaction check-out is being initiated;

5           Figure 5. shows a screen image of the web site order form of Figure 3. partially filled out by the customer;

Figure 6. shows a screen image of the client application of Figure 2. indicating errors made in the submission or the check-out process by the customer;

10           Figure 7. shows a screen image of one typical web site confirmation form in an embodiment of a method of the invention;

Figure 8. shows a screen image of the client application of Figure 2. indicating a completed transaction;

15           Figure 9. shows a flowchart depicting the steps of processing a system initiation and a new page request with dynamic content, wherein the solid lines trace the system initiation and the dashed lines trace the new page request in an embodiment of a method of the invention;

20           Figure 10. shows a flowchart depicting the steps of processing a system initiation and a new page request with dynamic content wherein the solid lines trace the system initiation and the dashed lines trace the new page request in an embodiment of a method of the invention;

Figure 11. shows a NetRep client in accordance with another embodiment of the invention depicting several major components of the front-end;

Figure 12. shows a portion of the NetRep client of Figure 11. depicting the information fields for customers;

25           Figure 13. shows a flowchart depicting the steps of a system initiation in accordance with another embodiment of the invention;

Figure 14. shows a flowchart depicting the steps of continually monitoring a customer in accordance with the embodiment of Figure 13;

30           Figure 15. shows a flowchart depicting the steps of proactively engaging a customer in accordance with the embodiment of Figure 13;

Figure 16. shows a flowchart depicting the steps of a customer explicitly requesting assistance in accordance with the embodiment of Figure 13;

Figure 17. shows a flowchart depicting the steps of managing a conversation in accordance with the embodiment of Figure 13;

Figure 18. shows a flowchart depicting the steps of releasing an engaged customer in accordance with the embodiment of Figure 13;

5        Figure 19. shows a flowchart depicting the steps of displaying a customer shopping cart in accordance with the embodiment of Figure 13;

Figure 20. shows a flowchart depicting the steps of pushing a selected page in accordance with the embodiment of Figure 13;

10       Figure 21. shows a flowchart depicting the steps of updating a customer profile information in accordance with the embodiment of Figure 13;

Figures 22a through 22i show screen images of the NetRep browser window and the customer browser window from when the NetRep initiates a conversation with the customer to when the customer is released;

15       Figures 23a through 23i show screen images of the NetRep browser window and the customer browser window from when the NetRep interactively helps the customer fill out a purchase order form to when the customer submits an approved form; and

Figure 24 shows a screen shot of a browser window showing a summary of available reports.

#### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

20       Dynamic content on the businesses' web site and proactive involvement by Internet-based customer network representatives (NetReps) make it possible to assist a customer to a web site in carrying out a transaction. One or more displayable pages of information are generated in real time, on the fly, as the surfer or customer navigates, makes purchases or completes various required informational forms required to complete a  
25       transaction. A customer network representative (NetRep) may proactively engage the customer or respond to a request for help and review customer specific information to support and assist in the completion of the transaction.

30       The contents of the customer's shopping cart can then be displayed as a dynamically created real time image or page for viewing by a NetRep of the entity or corporation sponsoring the web site. This image enables the representative to in real time graphically view the contents of the surfer's or customer's shopping cart. This interaction is invisible to the customer during the time that the customer is perusing various pages of the web site.

When the customer clicks on the "check out" or submit button, the image tag can be generated again, and the NetRep views the final contents of the customer's electronic shopping cart. In the latter instance, the NetRep is able to proactively open a dialogue with the surfer or the customer for purposes of assisting in the check-out phase of the transaction.

5           Additionally, the process or the NetRep can then discriminate between customers based on current or previous contact with the web site. Web site algorithms are developed to 'filter' this data for the NetRep's use. Customers or surfers whose collection of goods or requests for services represent a higher level of content or more extensive transactions may therefore receive priority over those customers whose selections represent a relatively low or limited content transaction. These filter algorithms can include using  
10           current content information, previous purchasing history, customer information or any internal or external web site data that is useful in determining the potential value of a customer interaction.

          As part of this interactive bi-directional communication, the representative can  
15           assist the customer in entering and obtaining authorization of a credit card to complete the purchase. Errors that have been made by the customer (and seen by the NetRep as well) can be corrected with the assistance of the NetRep and a message can be returned to the customer explaining various aspects of the assistance and the corrections that have been made, if any, for purposes of facilitating a conclusion of the transaction.

20           To implement the interactive process of initially viewing the contents of the user's shopping cart during the transaction, a template can be used. A displayable page can then be generated in real time in response to a request by the customer for an item to be placed in to the customer's acquisition list or shopping cart. As a result, the representative is able to view the contents of the customer's shopping cart while at the same time remaining  
25           invisible to the customer.

          Once the surfer or customer has concluded the acquisition phase, that individual will then enter a check-out phase to conclude the transaction. If a "submit" icon or "check-out" icon have been clicked, the NetRep can then be brought into the process first to discriminate between those potential transactions that are appropriate for further follow-up.  
30           For example, small transactions may need little or no follow-up. Major transactions involving numerous items or various requests for services can then be facilitated by the NetRep.



The NetRep can, in turn, open a dialogue with the customer in a role of “virtual cashier” for purposes of assisting the customer in concluding the transaction. Assistance could include answering questions about products, answering questions about the financial aspects of the transaction including assisting the customer in obtaining authorization of credit card numbers, and the like. Once the transaction has been successfully concluded, the NetRep can send to the customer an appropriately worded sign-off or log-off message intended to have the customer exit the web site with a positive shopping experience and a positive view of the entity sponsoring this site.

Figures 1 through 8 represent screen images associated with one embodiment of a system and method of the invention involving a transaction of the type described above. Figures 1, 3, 5 and 7 illustrate pages or browser windows transmitted to the customer for purposes of carrying out a transaction involving two items. Figures 2, 4, 6 and 8 illustrate images as seen by the representative of the sponsor of the web site initially while tracking the shopping process, Figure 2, and in recognizing that a transaction check-out was being initiated, Figure 4. Figures 6 and 8 illustrate information provided to the representative pertaining to errors made in the submission or the check-out process by the customer. As described above, such errors can be dynamically responded to by opening a dialogue with the customer, proactively, without waiting for the customer to have to try to address the problem or error on their own.

With reference to Figure 9, the following steps show how a method of the invention processes a system initiation and a new page request with dynamic content. The solid lines trace the system initiation and the dashed lines trace the new page request.

#### System initiation

The customer clicks a link that requests a page from the web server that is serving up dynamic pages at a step 1.

The web server returns a cookie containing the customer's unique identifier and a frame set with at least a hidden frame and a content frame at a step 2.

The content frame requests a page from the web server which is returned to the content frame at a step 3.

The hidden frame performs a UPULL function call to the ISAPI server extension, getting the customer's ID from the cookie, notifying the web server system of the new customer. The hidden frame receives back a page that will perform the UPULL again after 'X' number of seconds at a step 4.

The server extension notifies the capture server that there is a new customer. It passes the customer's ID and current page at a step 5.

The capture server notifies the NetRep server that a new customer is on the site. The notification includes the customer's ID and current page at a step 6.

5           A new session is created in the database for the customer which includes the customer's current page, browser strings, and IP address at a step 7.

The NetRep client application is notified of the new customer at a step 8.

#### New page request

10          The customer clicks on a link that requests a new page from the web page server, and the web server returns the page to the content frame at a step 1.

The function NPNOTIFY is sent to the ISAPI server extension from the returned page at a step 2. It returns a one pixel graphic to the page.

15          The function NPUPDATE is sent to the ISAPI server extension from the returned page at a step 3. This updates the parameters in the UPULL function to include the new page. It returns a one pixel graphic to the page.

The server extension notifies the capture server that a customer has requested a new page at a step 4. The notification includes the requested URL and the customer's ID.

The capture server notifies the NetRep server that a customer has requested a new page at a step 5. The notification includes the customer's ID and current page.

20          The page history gets updated in the database for the customer at a step 6.

The NetRep client application is notified of the page change at a step 7.

With reference to Figure 10., the following steps show how the method of the invention tracks and registers items placed into a shopping cart.

#### Adding Items

25          The customer adds a new item to the shopping cart by clicking on the item's link at a step 1.

When the item is added to the shopping cart the NINOTIFY function is sent to the ISAPI server extension notifying the web site server that the customer has added an item to their shopping cart at a step 2. A one pixel graphic is returned to the page.

30          The ISAPI server extension notifies the Capture server that the customer has added an item to their shopping cart at a step 3.

The Capture server notifies the NetRep server that the customer has added a new item to their shopping cart at a step 4.

The NetRep server logs the information to the icontact database at a step 5.

The NetRep server notifies the NetRep client which updates the item in the customer's item list displayed in the NetRep client.

5     Another embodiment of the system of the invention will now be described in further detail.

#### I.     System Overview

The web site server system of the business running the customer service representative application of the invention may be known as the "icontact Server system." The icontact Server System allows for proactive, real-time profiling, engagement, and  
10     communication with concurrent customers on a web site. Through the use of a collection of single-pixel image calls on the web site, a representative can profile all individual customers by viewing the consecutive series of pages the customer has perused, the items currently in the customer's online shopping cart, the values the customer has entered into various forms on the site, and any information in additional backend business systems that contain  
15     previously gathered information about the customer.

At any time the NetRep is able to proactively open a dialogue with the customer to aid the customer. The NetRep is able to offer assistance in finding a specific page and then direct the customer's browser to that page without any navigation from the customer. The NetRep is also able to assist the customer with completion of HTML forms  
20     throughout the web site. The NetRep is able to view the values entered by the customer, update or edit the values, and push the form back to the customer. The customer can then submit the form for processing.

#### I.a.   NetRep Client Overview

Many tools and resources are embedded with in the NetRep client to assist the  
25     representative in profiling and conversing with customers visiting the web site.

The NetRep Client is divided into 5 different areas, see Figure 11.

Profiling Queue – The Profiling Queue is where all unengaged customers currently on the web site are listed. Clicking anywhere in the row containing the customer will highlight the row and make the customer selected the Active Customer. When  
30     highlighted, this reference row also activates the personalization information relevant to the customer, if there personalization data for the customer. This additional information aids the NetRep in further profiling data to aid in the prioritization of the customer. In addition, listed alongside each customer on the site are the following data points, see Figure 12.

Status – In a two letter code, the Status displays whether a customer is available (AV), has been previously engaged (PE), or is requesting a assistance. (HI).

Page – Page is the length of time the customer has been viewing the page. The time is formatted as 'hh:mm:ss' where 'hh' is the number of hours, 'mm' is the number of minutes, and 'ss' is the number of seconds the customer has been on the current page.

Site – Site is the length of time the customer has been perusing the site in the current browsing session. A browsing session ends when the customer does not view a page in the active web site for a 'x' number of seconds. The time format is the same as in Page.

Current Page – Page is a description of the page the customer is currently viewing. This may be the title of the page, error codes encountered by the customers, the name or SKU of a product the customer is viewing, any phrase outputted by the web site, or a combination of the above.

Current Cart Item – The Current Cart item column displays the most recent product with positive activity (addition of quantity) in the customer's shopping cart.

Cart Total – The total price of all items in the customer's shopping cart multiplied by the individual quantities of each product appears in the Cart Total column.

ID – ID is the unique identifier given to the listed customer. This ID is used to track the customer as they progress through the site. This ID can be explicitly defined by the web site. This is possible when the sponsoring web site platform maintains a unique identifier. This explicitly defined identifier then allows the icontact server to utilize information stored in the sponsoring web site's platform and database when profiling a user.

IP – The IP column displays the IP (Internet Protocol) address of the listed customer. This is useful when determining the origin of this customer. A reverse-lookup of the customer's IP address may offer insight into their connectivity or the corporation's network they are using to access the internet.

Engaged Queue – The Engaged Queue displays all customers that are currently engaged by the representative (the NetRep) using this NetRep client. It contains the same data points as the Staging Queue. Selecting a customer in this queue will highlight the row of data for the customer and make them the Active Customer. Only one customer can be the Active Customer at a time. This allows the NetRep to switch between several engaged

and unengaged customers and view profiling information specific to each individual customer.

Personalization Area – The Personalization Area contains data specific to the Active Surfer to profile the current Active Customer. When selected, each of the tabs will display personal information specific to that customer. In addition, this information displays status messages that the Surfer sees that enables the NetRep to support and aid in the successful completion of a transaction. These tabs are fully functional whether the Active Customer is engaged or not engaged. The list of available Personalization tabs are as follows:

Notes – The Notes tab allows retrieval and creation of distinguishing data about this user. The representative can enter personal information such as name, address, and various notes about the customer which can be referenced, changed, and searched by representatives that encounter this customer in the future. In addition, this tab allows for entering lead generation information which is then referenced in database reports.

History – The History tab lists all past session visits from this customer, the number of purchases the surfer has made, the average dollars spent on each purchase, the pages the customer viewed and the amount of time spent on these pages for the currently selected session and the pages viewed during the current session. In addition, since all conversations are recorded for each individual session and stored within the icontact data bases, any previous conversations with a NetRep the customer had through the icontact system may be viewed. This is especially useful when needing to reference previous pricing discussions that may have occurred not only at different times of the site visits, but with different NetReps. The default session selected is the current session. The NetRep may view past history information by selecting the session from the drop-down control.

Cart – The Cart Tab acts as a complement for the Cart Total column located in the Staging and Engaged Queues. The Cart Tab lists all products currently in the Active Customer's shopping cart and the progression of additions, removals, and quantity changes that brought the customer to arrive at the current state of contents. The NetRep may also be enabled to view an image of the product.

Forms – The Forms Tab lists the various forms found throughout the sponsoring web site. The representative is able to view the values entered by the customer. If the surfer makes errors in the submission, the NetRep can simultaneously see the error messages and support and aid in the successful entry of the information. The NetRep can

even make changes to these values him or herself and 'push' the form with the newly entered data to the customer while the customer is engaged.

Queries – The Queries Tab is an open definition tab that can be used to integrate the NetRep client into existing or custom created backend systems or databases.

- 5 For example, if the ID of the customer is explicitly defined by the sponsoring web site, that ID allows unique reference to data stored on the backend systems of the sponsoring Web site. The representative then has available to them all data resources stored on the various systems in the sponsoring organization.

- 10 The Personalization areas are totally customizable to meet the individual web site needs. Data can be presented to the NetRep screens not only from the web site, but also can come from the customer data bases. As an example, if a customer would like to integrate a Tracking/Shipping data base for the NetRep's use, a tab can be created to interface with the Tracking/Shipping data in this Personalization area.

- 15 Programmed Response – The Programmed Response area conveys the knowledge designed to assist the representative in answering questions posed by the customers in conversation and direct the customers to information resources on the sponsoring web site. The Programmed Response area consists of two portions:

- 20 Preset Messages Tab – The Preset Messages tab is a collection of available responses stored in an hierarchical structure for easy retrieval. The Preset Messages can be imported from other available customer service prompting systems. This area may also be interfaced to a natural language parsing system to provide a limited listing of responses based on the current conversation.

- 25 Tour Guide Tab – The Tour Guide tab is a collection of destinations that an engaged customer may be proactively directed or displayed a link in a conversation. The destinations are stored in an hierarchical system. The destinations may be imported from product listings or other database defined dynamic pages. This area may also be interfaced to a natural language parsing system to provide a limited listing of destinations based on the content within the current conversation. This capability also extends to the sending of presentation files, such as Microsoft's PowerPoint, Acrobat's PDF files, multimedia files, as well as other medium used to tell a story, or document a product or process.

30 Current Conversation – The Current Conversation area contains the interface for sending messages to the currently engaged Active Customer. Upon pressing enter or clicking Send, the contents of the Outgoing Message box will be sent to the engaged Active

Customer. The ongoing conversation with the Active Customer appears above. The conversation is color coded and labeled with the originator of the message. Using the color red, for example, denotes an intuitive message to the NetRep that attention is needed in the conversation. Selecting a different customer in the Engaged Queue will switch the Current  
5 Conversation area to the conversation involving the selected customer.

## II. Core Functionality

Through the use of several core functionalities that utilize the NetRep Client, NetRep Server, Capture Server, iconcontact Database, ISAPI Server Extension, and HTML embedded in the treated pages, the iconcontact system has several core functionalities. The  
10 combination of these functionalities allow for an overall system of profiling, proactive engagement, and assistance for customers perusing the sponsoring web site.

### II.a. Core Functionality – System Initiation

Before engagement or profiling is possible, the user must be initialized as customer perusing a treated Web site. This process is minimally invasive and should be  
15 oblivious to the customer. With reference to Figure 13:

The customer clicks a link or enters a URL from the Web Server that is serving up dynamic content at a step 1.

The web server returns a frameset page with frames named Content and Beat at a step 2.

20 The Content frame requests a page from the web server which is returned to the Content frame at a step 3.

The hidden beat frame includes an image call that calls the INITCOOKIE function on the ISAPI server extension. The ISAPI extension returns a cookie containing the customer's unique identifier at a step 4.

25 The hidden frame performs a UPULL function call to the ISAPI server extension, getting the customer's ID from the cookie, notifying the iconcontact system of the new customer at a step 5. The hidden frame receives back a page that will perform the UPULL again after 'X' number of seconds.

The ISAPI server extension notifies the capture server that there is a  
30 new customer at a step 6. The ISAPI server extension passes the customer's ID and current page.

The capture server notifies the NetRep server that a new customer is on the site at a step 7. The notification includes the customer's ID and current page.

A new series of session information is created in the database for the customer at a step 8. This information includes the customer's current page, browser strings, and IP address.

5     9.     The NetRep client application is notified of the new customer at a step

#### II.b. Core Functionality – Continuing Customer Tracking

Once the customer is viewing pages inside the iconcontact frameset, the system is able to continue tracking the customer as they progress through the Web Site. With reference to Figure 14:

10             The customer clicks on a link that requests a new page from the web server at a step 1. The web server returns the page to the content frame at a step 2.

The returned page determines whether it is inside the iconcontact frameset through JavaScript code in the HTML HEAD. If it is not, then a request is made to the web server to load the iconcontact frameset with the current page as the main content at a step 2a.

15             The function PNOTIFY is sent to the ISAPI server extension passing a text description of the page the customer is currently viewing at a step 2b. It returns a one pixel graphic to the page.

              The function UPPAGE is sent to the ISAPI server extension passing the URL of the page in the content frame at a step 2c. UPPAGE updates the parameters in the UPULL function to include the new page. The function call returns a one pixel graphic to the page.

              The ISAPI server extension notifies the capture server that a customer has requested a new page at a step 3. The notification includes the customer's ID, the URL of the page, and the page description.

25             The Capture server notifies the NetRep server that a customer has requested a new page at a step 4. The notification includes the customer's ID, the URL of the page, and the page description.

              The page history gets updated in the database for the customer at a step 5.

30             The NetRep client application is notified of the page change at a step 6 and the NetRep views the history at a step 7.



### II.c. Core Functionality – Proactive Engagement

The NetRep client contains all available customers in the Staging Queue. The NetRep is able to selectively engage individual customers. With reference to Figure 15:

5     The NetRep selects the customer from their Staging Queue and clicks Engage at a step 1.

The NetRep Client notifies the NetRep Server of the conversation request passing the customer's ID at a step 2.

The NetRep server notifies the conversation request to the Capture server passing the customer's ID at a step 3.

10     The customer's browser calls the UPPAGE function on the ISAPI server extension as part of the beat process at a step 4, which occurs every 'X' seconds.

The ISAPI server extension requests the state change from the Capture server where the ISAPI server extension is notified of the conversation request at a step 5.

15     The ISAPI server extension returns the JavaScript code to generate the conversation frameset on the customer's browser at a step 6.

The content frame is determined from the most recent UPPAGE function call at a step 6a.

The NetRep's initial message is retrieved from the ISAPI server at a step 6b.

### 20     II.d. Core Functionality – Reactive Engagement

In addition to proactive engagement, the customer can explicitly request help from all available NetRep's. With reference to Figure 16:

25     The customer initiates a request by clicking on a link that calls the REQUEST\_NETREP function on the ISAPI server extension and passes the URL of the current page in the content frame at a step 1.

The ISAPI server extension returns a frameset to the browser containing a Beat, Content, and Waiting frame. The content frame is set to the URL passed in the REQUEST\_NETREP function.

30     The ISAPI server extension notifies the Capture server of the request and passes the customer's ID at a step 2.

The Capture Server notifies the NetRep Server of the request and passes the customer's IP at a step 3.

The NetRep server saves the request to the database at a step 4.

The NetRep server notifies the NetRep Client of the request at a step 5.

The NetRep Client changes the status of the customer in the Customer Queue to notify the NetRep of the customer's request for a NetRep at a step 6. At this point, the engagement is treated as a proactive engagement and is the NetRep's responsibility to react to the request.

II.e. Core Functionality – Managing Conversations From the NetRep

Once engaged, the NetRep is able to freely send messages that will be displayed on the customer's browser. With reference to Figure 17:

The NetRep enters a message into the Current Conversation Area of the NetRep client while the engaged customer is selected in the NetRep Client's Engaged Queue at a step 1.

The message request is sent to the NetRep server along with the customer's ID at a step 2.

The NetRep Server saves the message into the database along with the customer's ID at a step 3.

The NetRep Server passes the message and the customer's ID to the Capture server at a step 4.

The beat frame makes a scheduled call to the UPPAGE function on the ISAPI server extension at a step 5.

The server extension notes the existence of a new message in the customer's outgoing message queue at a step 6.

The ISAPI server extension sends code to the customer's browser requesting that it updates the NetRep portion of the visible conversation at a step 7. The conversation requests the most recent conversation page from the ISAPI server extension.

The ISAPI server extension returns the most recent conversation including the message entered by the NetRep at a step 9.

II.e. Core Functionality – Managing Conversations From Customer

An engaged customer is able to freely send messages to the NetRep who has the customer engaged. This NetRep is notified of the message and can the contents of the conversation.

The customer enters a message into the edit box in the conversation frame. This message is sent via the SMESS function call to the ISAPI server extension.

The ISAPI server extension notifies the capture server of the message and passes the customer's ID and message.

The Capture server passes the message and customer ID to the NetRep server.

5 The NetRep server saves the message and customer ID to the database.  
The appropriate NetRep client is notified of the message and customer ID.

The customer's line in the Engaged Queue is updated and displays a flashing icon. The message list for this customer is updated and displayed when the customer  
10 is selected in the Engaged Queue.

#### II.f. Core Functionality – Releasing a Customer

The NetRep is able to return the customer to a standard browsing section, removing the visible conversation frame, while maintaining the icontact frameset to allow continued tracking the customer's actions. With reference to Figure 18:

15 The NetRep selects the customer in their Engaged Queue and clicks Release at a step 1.

The NetRep Client notifies the NetRep server of the request and passes the customer's ID at a step 2.

The NetRep Server updates the database with the Customer's ID at a  
20 step 3.

The NetRep Server notifies the Capture server of the request, passing the customer's ID at a step 4.

The schedule UPPAGE request is made to the ISAPI server extension from the browser at a step 5.

25 The ISAPI server extension discovers the release request for the customer at a step 6.

The ISAPI server extension returns code that will create an un-engaged frameset on the browser at a step 7. The frameset returned uses the last UPPAGE function parameter as the source for the content frame at a step 8.

#### II.g. Core Functionality – Storing Shopping Cart Information

30 The contents of a customer's shopping cart can be stored in the icontact system to allow for personalizing and profiling the customer. With reference to Figure 19:

In the process of conducting an online sale, a customer requests a particular item be added to their shopping cart, at a step 1, or other action be taken that affects the customer's shopping cart. This may include changes of quantity, removal of an item or items, or final purchase of the item or items.

5                   The Web Site returns the current contents of the shopping cart as defined by the Web Site Platform and Database at a step 2. This step is oblivious to the icontact system.

A single graphic image calls the REFRESHCART function on the ISAPI server extension, at a step 3, passing the price, SKU, name, and qty for each product in  
10                   the shopping cart.

The ISAPI server extension notifies the Capture Server of the request and passes the customer's ID and all the data points passed to the ISAPI server extension at a step 4.

The Capture Server notifies the NetRep server of the request and  
15                   passes the customer's ID and all the data points passed to the ISAPI server extension at a step 5.

The NetRep server passes the customer's ID and the contents of the cart to the Database where it is stored at a step 6.

The NetRep server computes the total value of the customer's cart and  
20                   notifies the NetRep Client of the change by passing the customer's ID, the total value, and the last product in the shopping cart list of products at a step 7.

#### II.h. Core Functionality – Pushing a Page

The NetRep is able to select a single engaged customer and direct the customer's browser to show a specific page in the Content frame as defined by the URL in  
25                   the Tour Guide Tab of the Knowledge Base Area. With reference to Figure 20:

The NetRep selects a customer in the Engaged Queue of the NetRep Client, selects a page from the Tour Tab in the Knowledge Base area, and clicks Push at a step 1.

The NetRep Client notifies the NetRep Server of the request, passing  
30                   the URL of the page to push and the customer's ID at a step 2.

The NetRep Server passes the URL and customer's ID to the Capture Server at a step 3.

The browser makes a scheduled call to the UPPAGE function on the ISAPI Server Extension at a step 4.

The ISAPI server extension discovers the waiting push page request at a step 5.

5 The ISAPI server extension sends the code to the browser that will change the content frame to the desired URL at a step 6.

The content frame requests the URL that was passed by the ISAPI server extension at a step 7. This URL can reference any web site including the sponsoring web site, the iconcontact web site, or a 3<sup>rd</sup> party.

10 **III. Profiling and Prioritization Tools**

The objective of the representative is to determine which customers to engage based upon predefined business rules. These rules may be designed to effectively target customers who are preparing to make large purchases, customers who appear to be lost, high profile surfers from history or customers who are interested in specific products. When  
15 determining which customer to engage, the NetRep has several tools available in the NetRep Client. The Personalization Area and various prioritization functionality exist within the NetRep Client.

**III.A. Personalization Area**

The Personalization Area in the upper-right hand section of the NetRep client  
20 breaks down information into different areas and is indexed to a specific customer. The data here may either be the iconcontact third parties data systems. The systems open architecture allows for any or all of the combinations to co-exist in this space. The display area itself is an embedded web browser. The specific URL requested for each tab is defined in the Administrative Client for the iconcontact system. The following describes how the content is  
25 retrieved. With reference to Figure 21:

Whenever the NetRep has a customer selected in either the Engaged Queue or the Profiling Queue, a request is made at regular intervals to the web URL specified by the tab currently selected. The NetRep client passes the selected customer's ID, IP address, misc. unique identifier, and current session information to the web server at a step 1.

30 The web server uses CGI to access the database to return information specific to the selected customer at a step 2.

The web server returns the HTML page to the NetRep Client at a step 3.

The NetRep client displays the information to the NetRep at a step 4.

### III.B. Prioritization

The NetRep client offers both filtering and sorting as methods for prioritizing customer activity. All individual data points in the Profiling Queue can be sorted to allow the  
5 NetRep to quickly rank customer activity.

Filters can be developed so that a 'threshold' must be met before a surfer is seen in the Profiling queue. Filters can be based on time on site, on a page, dollars in their shopping basket, error conditions or other data points either within the web site or the customers enterprise data bases. The individual NetRep client also allows the NetRep to  
10 filter on these data points to target particular customers. Each NetRep involved in representing a web site is able to utilize different types of filters and is able to readily switch between these filters. The following is a list of the different filters available to the NetRep:

Status – The NetRep can request that the staging queue only display Customers with a specific type of status. This becomes helpful when the NetRep is looking  
15 to act within a reactive model as the NetRep can select that only Customers requesting assistance will appear in the Staging area.

Time On Page/Time On Site – The NetRep is able to view customers in the Staging Queue only after they have been on the site or page for a particular amount of time. This is helpful when looking for customers that have been on a help screen or are  
20 viewing the checkout form.

Specific Page – The NetRep is able to choose whether this type of filter is persistent or non-persistent. If a customer views a page that is listed in the predefined list of filter pages, they will appear in the Staging Queue. If the filter is persistent, the customer will then remain in the Staging Queue regardless of their current page.  
25

Shopping Cart – The NetRep is able to define a threshold value for the dollar amount of a customers Shopping Cart. If the total value of the Customer's shopping cart is greater then this value, the customer appears in the Staging Queue.

An engaged customer will always appear in the Engaged Queue of the NetRep client that has them currently engaged. At that point the customer is not listed in any  
30 Profiling Queue. Filters only affect the Profiling Queue. Therefore, engaged customers are not affected by filters until they are released.

#### IV.A Shopping Cart/Product Push

An exemplary embodiment of the invention allows the NetRep to assist selected customers. For example, the following example shows how profiling a customer may assist in helping customers complete more sales.

5                   While helping a customer, the NetRep notices that another customer has been on the site for a long time (Time On Site in the Staging Queue) and that the customer already has a large dollar amount in the Cart Total, Figure 22a.

                  The NetRep further investigates the customer by selecting the Shop Cart Tab in the profiling area after clicking on the customer, Figure 22b. The customer has  
10                   several items in the cart and, in this example, this satisfies the specific business rules of the sponsoring company to proactively engage a customer.

                  The NetRep engages the customer by clicking Engage on the NetRep client. The customer's browser opens up the conversation window, Figure 22c, and the NetRep's default greeting is displayed.

15                   The NetRep now has two customers engaged and can switch between the conversations by selecting the customer in the Engaged Queue, Figure 22d.

                  The Customer now composes a reply message to the NetRep in the conversation window. For example, here the customer is looking for a particular type of product, Figure 22e.

20                   The NetRep composes a response after finding the product in the Programmed Response Area. The NetRep sends the response, selects the product from the tour tab, and clicks Push, Figure 22f.

                  The customer receives the message from the NetRep and the screen is refreshed to the page containing the requested product, Figure 22g.

25                   The customer composes a message to the NetRep asking to be released. The NetRep releases the customer by clicking on the Release button, Figure 22h.

                  The original customer remains engaged, Figure 22i.

                  The limitation on the number of customers a single NetRep can engage is based on the connectivity and computer and the average length and depth of conversations  
30                   with customers the NetRep can handle. There is no physical limitation to the number of surfer sessions. It is more a quality of the conversation as more customers are engaged that creates the limitation. The icontact server system itself places no limitation on the number of engaged customers by a single NetRep.

#### IV.B. Forms Assistant

The following example of another embodiment of the invention monitors the customer shopping cart and forms profiling systems of an e-commerce web site.

The NetRep is able to view the current page a customer is on through  
5 the Staging Queue on the NetRep Client, Figure 23a, and that the customer has yet to complete the ordering form for the site, Figure 23b.

The customer begins completion of the form leaving several fields blank or in error, Figure 23c. The customer then submits the form.

Upon customer submission, the NetRep is able to view the values  
10 entered by the customer through the Forms Tab in the Profiling Area, Figure 23d.

The NetRep engages the customer. The NetRep composes a message based on the error information provided in the Forms Tab, Figure 23e.

The customer receives the message from the NetRep, Figure 23f.

The customer composes a message containing the missing information,  
15 Figure 23g.

The NetRep receives this message from the customer, Figure 23h, and the NetRep uses the Forms Tab to store this information, Figure 23i.

The NetRep then selects the Order Form from the Tour Tab in the Programmed Response Area and clicks the Push button, Figure 23j.

20 The customer receives the Push page and verifies that everything is correct, Figure 23k.

The customer submits the order form. If the values were correct, the customer receives a confirmation, Figure 23l. If there were errors remaining in the form, the NetRep is able to continue helping the customer fill out the form and/or push the form an  
25 additional number of times.

At this point the NetRep releases the customer and the customer continues perusing the web site.

#### V. Further Integration

The core system allows for much flexibility in including additional  
30 technologies in a new and unique format. The data collected from customer activity is analyzed to provide reports not only on page demographics, but on the effective use of customer support to increase sales and customer loyalty. Voice and multimedia can be



integrated into the platform. The Programmed Response area can be dynamic through database access and natural language parsing.

#### V.a. Reporting

5 The icontact Database stores every page customers view, the contents of all shopping carts, all conversations, all engagements, and all sales. This data is analyzed through statistical reports that help determine NetRep efficiency, online sales efficiency, traffic patterns, and quantitative analysis of customer support.

On a nightly basis, the database is analyzed and statistical information for the last day and last week are stored in Database tables that are referenced in a series of reports  
10 that are accessible via a web browser, see Figure 24.

The reports and data can also be exported for further analysis.

#### V.b. Click to talk

Connecting the icontact system to a telephony system provides a NetRep with the means of talking directly to a customer via a telephone. The following is an example:

15 The NetRep engages a customer through the online icontact system.

In the course of discussion, it is determined that assistance would be best offered via telephone.

The NetRep pushes a form out to the customer. The form prompts for the customer's telephone number. The form has already been tagged with the NetRep's  
20 telephone number.

The customer completes the form and presses submit.

The submission executes on a server that in turn initiates a phone call to the NetRep.

When the NetRep answers the phone the system then dials the  
25 customer.

When the customer picks up, the conversation can continue through the telephone.

While the above process describes the use of a terrestrial based land line system, the same technologies can also be applied using what is commonly called Voice over  
30 IP (VoIP). The technology uses internet protocol for voice communication allowing the voice to occur over the same data facilities that the computer on the internet utilizes. This sharing the data line can substantially reduced communication costs utilizing VoIP.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in carrying out the above method and in the constructions set forth without departing from this a scope of the invention. It is intended that all matter contained in the  
5 above description and shown in the accompanied drawings shall be interpreted in an illustrative sense and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described and all statements of this scope of the invention which, as a matter of language, might be said to fall there between.

## CLAIMS

We claim:

1. A method of using an electronic network to facilitate communication between a NetRep and a customer, comprising:
  - 5 detecting the presence of a particular customer at a particular page of a web site;
  - transmitting an indicator to a selected NetRep display whereupon transmission of a return message to be presented to that customer can be initiated;
  - transmitting the return message to that customer for viewing; and
  - 10 detecting at least one of identification information relevant to that customer, historical information about a customer's prior web site visits, internal data or data maintained outside of the web site in an enterprise-wide data system relevant to that customer and information about that customer's previous e-commerce transactions with the web site.
2. The method of claim 1, further comprising tracking the progress of the  
15 customer through the web site and building a list of visited web pages thereof.
3. The method of claim 2, further comprising transferring a response from the customer to the NetRep display.
4. The method of claim 3, further comprising transferring a responsive reply  
back to the customer substantially on a real-time basis.
- 20 5. The method of claim 4, further comprising enabling the customer to carry out a commercial transaction.
6. The method of claim 4, further comprising facilitating the carrying out of an interactive conversation.
7. The method of claim 2, further comprising displaying a list of web pages  
25 presented to a customer over a period of time.
8. The method of claim 7 wherein the list of web pages is displayed at a remote site.

9. The method of claim 8, further comprising presenting to the customer an indicator whereby the customer, when viewing a selected page, can initiate a bi-directional conversation with the remote site.

10. A method of communicating with a customer who has logged onto a  
5 communication network comprising:

presenting at least a part of an information sequence, displayable in part, and including one or more pages that may be displayed at various times in response to commands entered by the individual;

10 detecting when the customer is viewing a page;  
tracking the progress of the customer through a plurality of pages which are in part presentable graphically;

storing the tracking information;  
transmitting, from another site, a selected communication to be presented to the individual to facilitate interaction with the page being displayed for the customer;

15 enabling the customer to form a responsive message; and  
transmitting the responsive message to the another site for reviewing and in real-time, and carrying out an interactive information interchange between the customer and the another site.

11. A method of facilitating interactive communications between a customer and a  
20 NetRep using an electronic network comprising:

selecting at least one page containing displayable information and commands for implementing a display;

incorporating additional commands, which when the page is to be displayed at a requesting site, provide information to another site;

25 displaying the selected page in response to a customer's request; and  
initiating a bi-directional information interchange, on the page being displayed, using the provided information.

12. The method of claim 11, further comprising opening a dialog box on the page being displayed.

13. The method of claim 12 wherein a message can be entered into the dialog box.
14. The method of claim 13 wherein the message can be transmitted to and displayed at another site.
15. The method of claim 14 which includes building a list at the another site  
5 indicative of the pages displayed at the requesting site.
16. An information sequence, in part displayable for a viewer, comprising:  
a text sequence to be displayed;  
a sequence of display controlling commands combined with the displayable text; and  
10 a sequence of tracking commands, combined with the displayable text whereby information pertaining to text being presented to a viewer can be presented, substantially in real-time, at a displaced location for tracking the text being presented to the viewer.
17. The sequence of claim 16 wherein the text sequence is organized as a plurality  
15 of linked pages and wherein at least some of the pages include frame based commands for tracking.
18. The sequence of claim 16 which includes, as commands, hypertext mark-up tags.
19. The sequence of claim 18 which includes as tracking commands, hypertext  
20 framing tags.
20. The sequence of claim 17 wherein the pages include, as commands, hypertext mark up tags and wherein at least some of the pages comprise hypertext frame tags.
21. A multi-processor communication system comprising:  
a customer client;  
25 a customer server, coupled at least intermittently to the customer client for transferring information therebetween whereby a customer using the customer client and the customer server can request a selected file, specified by the customer;  
a monitoring client;

a monitoring server, coupled at least intermittently to the monitoring client, for transferring information therebetween wherein the servers can communicate via a common network, whereby a NetRep using the monitoring client and the monitoring server can initiate an interactive real-time information interchange with the customer and wherein the customer  
5 can reply thereto on a one-on-one basis.

22. The system of claim 21 wherein the customer client includes, at least in part, a browser to facilitate a display of the selected file.

23. The system of claim 22 wherein the browser is capable of interpreting HTML-type tags in the file to facilitate display thereof.

10 24. The system of claim 23 wherein the monitoring server receives information indicative of the progress of the customer in reviewing the displayed file.

25. The system of claim 24 wherein the monitoring server includes a control program for forwarding to the monitoring client the progress indicating received information.

15 26. A method for using a computer to enable a web site NetRep to observe in real-time a web site usage profile of any one of a plurality of web site customers and proactively to engage the customer in a one-to-one, real-time conversation, comprising:

recording individualized information about each customer's usage of the respective web site including a list of the web pages the customer has viewed and the amount of time spent on each, a unique customer's address, a status indicator showing whether the  
20 customer has been previously engaged by another NetRep, the total time the customer has spent on the web site, and a unique identifier for each customer;

displaying to a group of NetReps the above information for the customers to all or a selected portion of the web site in real-time;

25 enabling any one of a plurality of NetReps to select any one of a plurality of customers to engage in a private one-to-one conversation; and

proactively engaging the customer so chosen in a one-to-one conversation without any action on the customer's part.

27. The method of claim 26, further comprising:

enabling a customer to request a conversation with a NetRep;

enabling one NetRep to engage in one-to-one conversations with a number of customers simultaneously;

enabling the NetRep to send messages and other content to the customer;

enabling the customer to receive messages and other content from the NetRep;

5 enabling the customer to send messages and other content to the NetRep;

enabling the NetRep to receive messages and other content from the customer;

and

enabling the NetRep to proactively terminate the conversation with any engaged customer.

10 28. The method of claim 26, further comprising enabling the customer to terminate the conversation with the NetRep.

29. The method of claim 26, further comprising recording all or part of the recorded information into a database for future use and analysis.

15 30. The method of claim 26, further comprising displaying for a customer a two-part graphical display with the NetRep's comments at one location and the customer's comments adjacent thereto.

31. An apparatus enabling a web site NetRep to observe a real-time web site personalized usage of any one of a plurality of web site customers, profiling them and proactively engage a selected customer in a one-to-one, real-time conversation, comprising:

20 a storage device; and

a processor connected to the storage device wherein the storage device includes a program for controlling the processor; and

25 wherein the processor interacts with the program to record information about each web site customer's usage of the web site including at least a list of the web pages the customer has viewed and the amount of time spent on each, a unique customer's address, a status indicator showing whether the customer has been previously engaged by another NetRep, the total time the customer has spent on the web site, and a unique identifier for each customer.

32. The apparatus of claim 31, further comprising displaying to a group of NetReps the information for the customers to all or a selected portion of the web site in real time including instructions to allow any one of an plurality of NetReps to select any one of a plurality of customers to engage in a private one-to-one conversation and to proactively  
5 engage the customer so chosen in a one-to-one conversation without any action by the customer.

33. The apparatus of claim 31, further comprising:  
commands to enable a customer to request a conversation with a NetRep and  
to enable one NetRep to engage in one-to-one conversations with a number of customers  
10 simultaneously;  
enable the NetRep to send messages and other content to the customer;  
enable the customer to receive messages and other content from the NetRep;  
enable the customer to send messages and other content to the NetRep;  
enable the NetRep to receive messages and other content from the customer;  
15 enable the NetRep to proactively terminate the conversation with any engaged customer;  
optionally enable the customer to terminate the conversation with a NetRep;  
and  
optionally record all or part of the above information into a database for future  
20 use and analysis.

34. The apparatus of claim 32, further comprising a display device displaying information in real time including, but not limited to, a list of the web pages the customer has viewed and the amount of time spent on each, a status indicator showing whether the customer has been previously engaged by another NetRep or not, the total time the customer  
25 has spent on the web site, and a unique identifier for each customer.

35. The apparatus of claim 31, wherein the storage device optionally store a record of all or part of the information regarding the user's web site usage program recorded by the apparatus.



36. A method for using a computer to observe a real-time web site usage profile of any one of a plurality of web site customers, to compare that profile with a number of predefined web usage profiles which are associated with lists of actions to be performed upon a pattern, to determine if the customer's usage profile matches any one of these predefined  
5 profiles, and to automatically perform the action associated with the matched usage profiles, comprising:

storing a number of predefined web site usage profiles;

storing and associating a list of actions with each predefined usage pattern;

10 recording information about each web site customer's usage of the web site including, but not limited to, a list of web pages the customer has viewed and the amount of time spent on each, the customer's address, a status indicator showing whether the customer has been previously engaged by another NetRep, the total time the customer has spent on the web site, and a unique identifier for each customer;

15 comparing the above information with each predefined usage profiles and their associated actions; and

executing the associated action list upon a successful match between the customer's usage pattern and the predefined usage pattern.

37. The method of claim 36, further comprising:

20 inputting into the computer a number of descriptions of a web site usage pattern;

inputting into the computer a number of lists of actions to be performed by the computer;

associating each usage pattern description with at least one list of actions to be performed by the computer; and

25 editing and deleting the descriptions of web site usage patterns, the lists of actions, and their associations.

38. An apparatus for observing a real-time web site usage profile of any one of a plurality of web site customers, to compare that profile with a number of predefined web usage profiles which are associated with lists of actions, to determine if the customer's usage profile matches any of these predefined profiles, and to automatically perform the action associated with the matched usage profiles; comprising:

- 5 a storage device; and
- a processor connected to the storage device;
- the storage device storing;
- a number of predefined web site usage patterns;
- 10 a list of actions associated with each predefined usage pattern;
- a program for controlling the processor; and

wherein the processor is operative with the program to record information about each web site customer's usage of the web site including, some or all of the web pages the customer has viewed and the amount of time spend on each, a status indicator showing whether the customer has been previously engaged by another NetRep or not, the total time the customer has spent on the web site, and a unique identifier for reach customer and wherein the program includes commands for comparing the above information with each predefined usage profile and executing the associated action list upon a successful match between the customer's usage pattern and the predefined usage patter.

20 39. The apparatus of claim 38, in which the processor is further operative with the program to:

- input a number of descriptions of a web site usage pattern;
- input a number of lists of actions to be performed by the computer;
- associate each usage pattern description with at least one list of actions to be performed by the processor; and
- 25 editing and deleting the descriptions of web site usage patterns, the lists of actions, and their associations.

40. A method of analyzing customer movements through a plurality of related files comprising:

tracking viewing paths of a plurality of viewers of the files; analyzing the tracking information and identifying selected file sequences which exhibit a greater incidence of viewing paths than other sequences.

41. The method of claim 40 wherein the tracking step is carried out in real time.

5 42. The method of claim 41 wherein the tracking information is stored.

43. The method of claim 42 wherein the analyzing step is carried out relative to the stored tracking information.

44. A method of identifying a customer at a web site comprising:  
detecting the presence of an individual customer at the site;  
10 determining the customer's IP address; and  
assigning a unique identifier to the customer in addition to the customer's IP address.

45. A computer implemented method for interacting with a customer browsing a web site, said computer implemented method comprising the steps of:

15 a) providing a computer-based client application accessible to a NetRep, said client application including means for determining the presence of a customer browsing a web site, means for transmitting a NetRep message from said NetRep to said customer, and a conversation display for displaying a conversation between said NetRep and said customer;

b) said web site including a coding means for transmitting a customer  
20 identity associated with said customer to a computer-based server application when said customer accesses said web site and means for retrieving said NetRep message from said server application;

c) accessing said customer identity of said customer accessing said web site from said server application by said means for determining;

25 d) displaying said customer identity to said NetRep by said client application;

e) composing said NetRep message by said NetRep;

f) transmitting said NetRep message to said server application;

g) whereby said NetRep message is displayed to said customer accessing said web site when said web site detects the presence of said NetRep message on said server application.

46. The computer implemented method of claim **Error! Reference source not found.**, further comprising:

a) recording at least one of historical information about prior web site visits of said customer, internal data or data maintained outside of said web site in an enterprise-wide data system relevant to said customer and information about previous e-commerce transactions with said web site by said customer.

47. The computer implemented method of claim 46, further comprising:

a) prioritizing customers displayed by said client application in accordance with pre-selected filters by said client application.

48. The computer implemented method of claim **Error! Reference source not found.**, further comprising:

a) displaying, by said client application, at least one of an e-commerce shopping cart of said customer and a web site form at least partially filled out by said customer.

49. A computer implemented system for interacting with a customer browsing a web site, said computer implemented method comprising:

a) a computer-based client application accessible to a NetRep, said client application including means for determining the presence of a customer browsing a web site, means for transmitting a NetRep message from said NetRep to said customer, and a conversation display for displaying a conversation between said NetRep and said customer;

b) said web site including a coding means for transmitting a customer identity associated with said customer to a computer-based server application when said customer accesses said web site and means for retrieving said NetRep message from said server application;

c) said means for determining accessing said customer identity of said customer accessing said web site from said server application;

- d) said client application displaying said customer identity to said NetRep;
- e) said NetRep composing said NetRep message;
- f) means for transmitting said NetRep message to said server application;
- 5 g) whereby said NetRep message is displayed to said customer accessing said web site when said web site detects the presence of said NetRep message on said server application.

50. The computer implemented system of claim 49, further comprising:

- a) said client application recording at least one of historical information  
10 about prior web site visits of said customer, internal data or data maintained outside of said web site in an enterprise-wide data system relevant to said customer and information about previous e-commerce transactions with said web site by said customer.



51. The computer implemented system of claim 50, further comprising:

- a) means for prioritizing customers displayed by said client application in  
15 accordance with pre-selected filters.

52. The computer implemented system of claim 49, further comprising:

said client application displaying, to said NetRep, at least to said one of an e-commerce shopping cart of said customer and a web site form at least partially filled out by said customer.

http://207.53.91.160:8080/amazon/icontact/frameset.htm?http://207.53.91.160:8080/amazon - Microsoft Internet Ex...  
 File Edit View Favorites Tools Help  
 Address http://207.53.91.160:8080/amazon/icontact/frameset.htm?http://207.53.91.160:8080/amazon/default.asp?id=1 Go

**iBookCorner**   **CONTACT MAIL**

**BOOKS** **MUSIC**

**CHILDREN** **FICTION** **COMPUTERS** **COOKING** **HEALTH & FITNESS**

---

**Shopping Basket**

You have 2 items in your shopping basket:  
 To change an item's quantity, edit the number and press "Update Basket".  
 To Continue Shopping, use the Departments on the top to navigate through the site.

Label Name	Unit Price	Today's Qty	Price	Disc.	Extra Total
001 Double Helix : The First Virtue (Star Trek, the Next Generation, No 56)	\$6.50	1	\$6.50	\$0.00	\$6.50
014 Professional ADO RDS Programming with ASP	\$49.99	1	\$49.99	\$0.00	\$49.99
<b>Subtotal:</b>					<b>\$56.49</b>


**Update Basket** **Checkout** **Empty Basket**

**Remove Item** **Remove Item**

**SEARCH**

**BROWSE**

- **Books**  
 Bestsellers, Computers, Kids, Business...
- **Music**  
 New Releases, Top Sellers, Classical, Soundtracks...
- **Videog**  
 DVDs, Top Sellers, New Releases, Kids & Family...
- **Auctions**  
 Books, CDs, Photo Equipment, Collectibles...
- **Electronics**  
 TVs, Cameras, Computer Add-Ons...

**Figure 1.**  **Done**

**iContact - NetRepClient**  
File Edit View Tools Help

Presets Tour Notes History Cart Forms

**NetRep Lens** Vers 2.0  
SessID: 946531384 Visits: 13  
IC\_ID: 815702357 207.53.91.67  
Average amt. spent per visit: \$18.47  
Surfer HAS NOT yet made a purchase in this visit.

**Input notes for selected surfer**  
Name:  
Title:  
Company:

**Outgoing Messages**  
Welcome to iContact.com! My name is Dan and I am here live to answer your questions.

**Local Messages**  
Default Greeting  
e-commerce  
proactive  
colonnade hotel  
Net-rep.com  
info?  
pricing

**Preset Messages**  
Greetings  
Company  
Features  
Customer Service

**Status** AV  
**ID** 3.21  
**IP** 3.58  
**Current Page** Books at Bo...  
**Curr...** 0.00  
**Cart T...** 8157...  
**Engage** 1  
**Release** 1  
**Engage** 1  
**Clear**

**Figure 2.**

http://207.53.91.160:8080/amazon/contact/iconact\_fameset.htm?http://207.53.91.160:8080/amazon - Microsoft Internet Ex...  
 File Edit View Favorites Tools Help  
 Address http://207.53.91.160:8080/amazon/contact/iconact\_fameset.htm?http://207.53.91.160:8080/amazon/default.asp?sid=1 Go

**iBookCorner**

CONTACT MAIL

BOOKS MUSIC

CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH & FITNESS

**Shipping Information**

If you need to change any items, please go to the [shopping basket](#) to correct them.

If the order is correct, then please fill out the shipping instructions below and press the "Total" button. This will show you what your total cost (including tax and shipping) will be. If the total is satisfactory, then you'll be able to complete the purchase.

**Shipping Method** Overnight ▾

**Shipping Address**

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Phone: \_\_\_\_\_

**SEARCH**

All Products

**BROWSE**

- **Books**
  - Bestsellers, Computers...
  - Kids, Business...
  - **Music**
    - New Releases, Top Sellers, Classical...
    - Soundtracks...
  - **Video**
    - DVDs, Top Sellers, New Releases, Kids & Family...
  - **Auctions**
    - Books, CDs, Photo Equipment...
    - Collectibles...
    - **Electronics**
      - TVs, Cameras...
      - Computer Add-Ons...
    - DVD Players...
    - **Toys & Games**

Internet

Figure 3.



iconnect - NetRepClient  
File Edit View Tools Help

9:41 9/8

Presets Tour

Input notes for selected surfer

Name: Title: Company: E-Mail: Address: City: State: Zip: Phone:

Local Messages

Default Greeting  
e-commerce  
proactive  
colormade hotel  
Net-rep.com  
info?  
pricing

Outgoing Message

Welcome to iconnect.com! My name is Dan and I am here to answer your questions.

Engaged Send Clear

Release Engage

Lock Tab 1 In Visitor List

Status	ID	IP	Current Page	Current Page	Site	Cart T...	ID
AV			349	9.00	Books at Blo...	9687	8157...

456.49

For Help, press F1

Figure 4.

http://207.53.91.160:8080/amazon/iconact/iconact\_frameset.htm?http://207.53.91.160:8080/amazon - Microsoft Internet Ex...  
 File Edit View Favorites Tools Help  
 Address http://207.53.91.160:8080/amazon/iconact/iconact\_frameset.htm?http://207.53.91.160:8080/amazon/default.asp?sid=1 Go

**iBookCorner** **BOOKS** **MUSIC**  
 CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH & FITNESS

**Shipping Information**  
 If you need to change any items, please go to the [shopping basket](#) to correct them.

If the order is correct, then please fill out the shipping instructions below and press the "Total" button. This will show you what your total cost (including tax and shipping) will be. If the total is satisfactory, then you'll be able to complete the purchase.

**Shipping Method** **Overnight**

**Shipping Address**

Name: John Doe  
 Street:  
 City: Fairfield  
 State: CT ZIP Code:  
 Phone:

**Continue** **Reset**

**SEARCH**  
 All Products **GO**

**BROWSE**

- **Books**  
 Bestsellers, Computers, Kids, Business...
- **Music**  
 New Releases, Top Sellers, Classical, Soundtracks...
- **Video**  
 DVDs, Top Sellers, New Releases, Kids & Family...
- **Auctions**  
 Books, CDs, Photo Equipment, Collectibles...
- **Electronics**  
 TVs, Cameras, Computer Add-Ons...
- **DVD Players...**
- **Toys & Games**

**Done**

**Figure 5.**

Internet

The screenshot displays the NetRepClient application window. At the top is a menu bar with 'iconnect - NetRepClient', 'File', 'Edit', 'View', 'Tools', and 'Help'. Below the menu is a toolbar with icons for 'Send', 'Engage', and 'Class'. The main interface is divided into several sections:

- Buttons:** 'Notes', 'History', 'Cart', and 'Forms' are located at the top right.
- Messages:**
  - Presel Messages:** Includes checkboxes for 'Greetings', 'Company', 'Features', and 'Customer Service'.
  - Local Messages:** Includes checkboxes for 'Default Greeting', 'eCommerce', 'proactive', 'colonnade hotel', 'Netrep.com', 'info?', and 'pricing'.
- Outgoing Message:** A text box containing 'Welcome to iconnect.com! My name is Dan and I am here five to answer your questions.'
- Error Message:** A dialog box titled 'Information entered by the Surfer' with a list of errors:
  - Ship to street must be a string between 1 and 100 characters
  - Ship to zip must be a string between 1 and 100 characters
  - Ship to phone must be a string between 1 and 100 characters
- Form Fields:** Fields for 'Name' (John Doe), 'Address', 'City' (Fairfield), 'State' (CT), and 'Zip'.
- Status Bar:** Displays '0 Engaged', 'Send', 'Class', and a table with columns: Status, ID, IP, Current Page, Date, Cart I..., Site. The table shows a single entry: 'AV', '11:02', 'Books at Bo...', '8157...'. A handwritten note '856.49' is visible next to the date.

Figure 6.

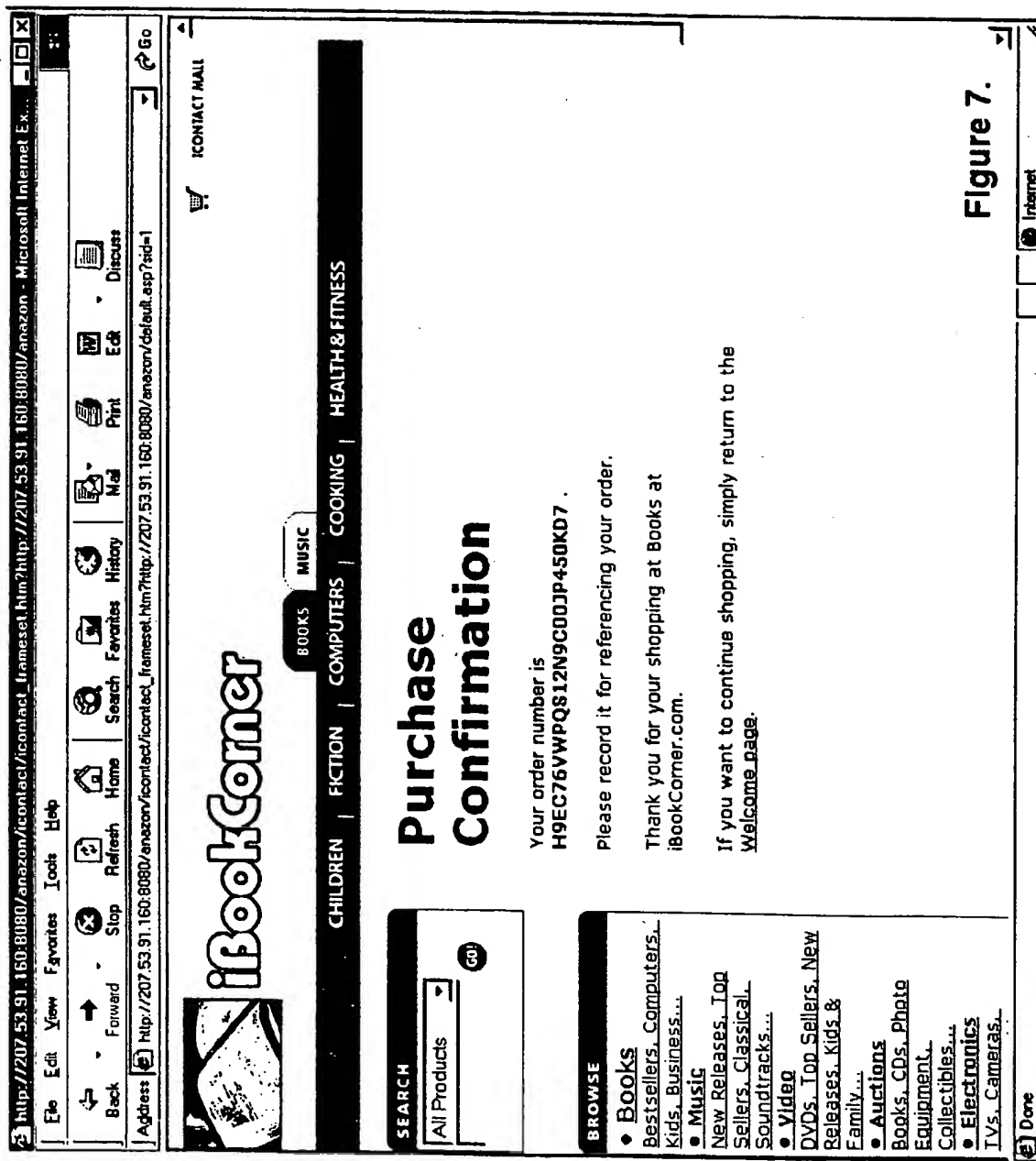


Figure 7.

**iContact - NetRepClient**

File Edit View Tools Help

---

**Presets** | **Tour**

- ☒ Preset Messages
- ☐ Greetings
- ☐ Company
- ☐ Features
- ☐ Customer Service

**Notes** | **History** | **Cart** | **Forms**

---

**NetRep Lens**    **Ver: 2.0**

Sess ID: 946531384    Visits: 13

IC ID: 815702357    207.53.91.67

Average amt spent per visit: \$31.14

Surfer HAS made a purchase  
in this visit!

**Information entered by the Surfer**

Name:	John Doe		
Address:	123 Main St		
City:	Fairfield	State:	CT
Zip:	06430		
E-mail:		Phone:	203-555-1212
CC Type:	Visa	CC Expiry:	2/2000

**Outgoing Message**

Welcome to icontact.com! My name is Dan and I am here live to answer your questions.

**Local Messages**

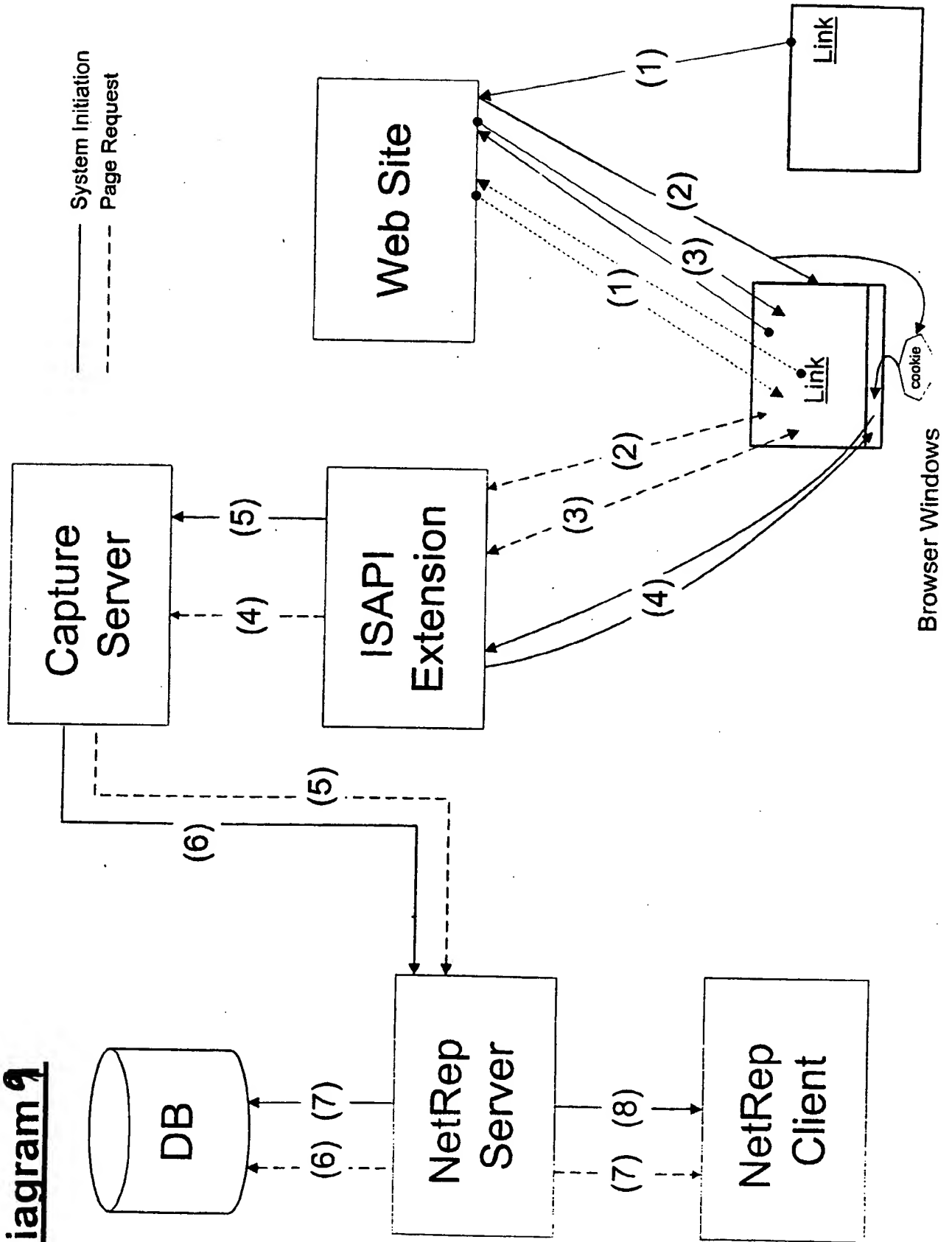
- ☒ Default Greeting
- ☐ ecommerce
- ☐ proactive
- ☐ colormade hotel
- ☐ Net-rep.com
- ☐ info?
- ☐ pricing

0 Engaged    Send    Clear
Lock Tab    1 In Visitor List

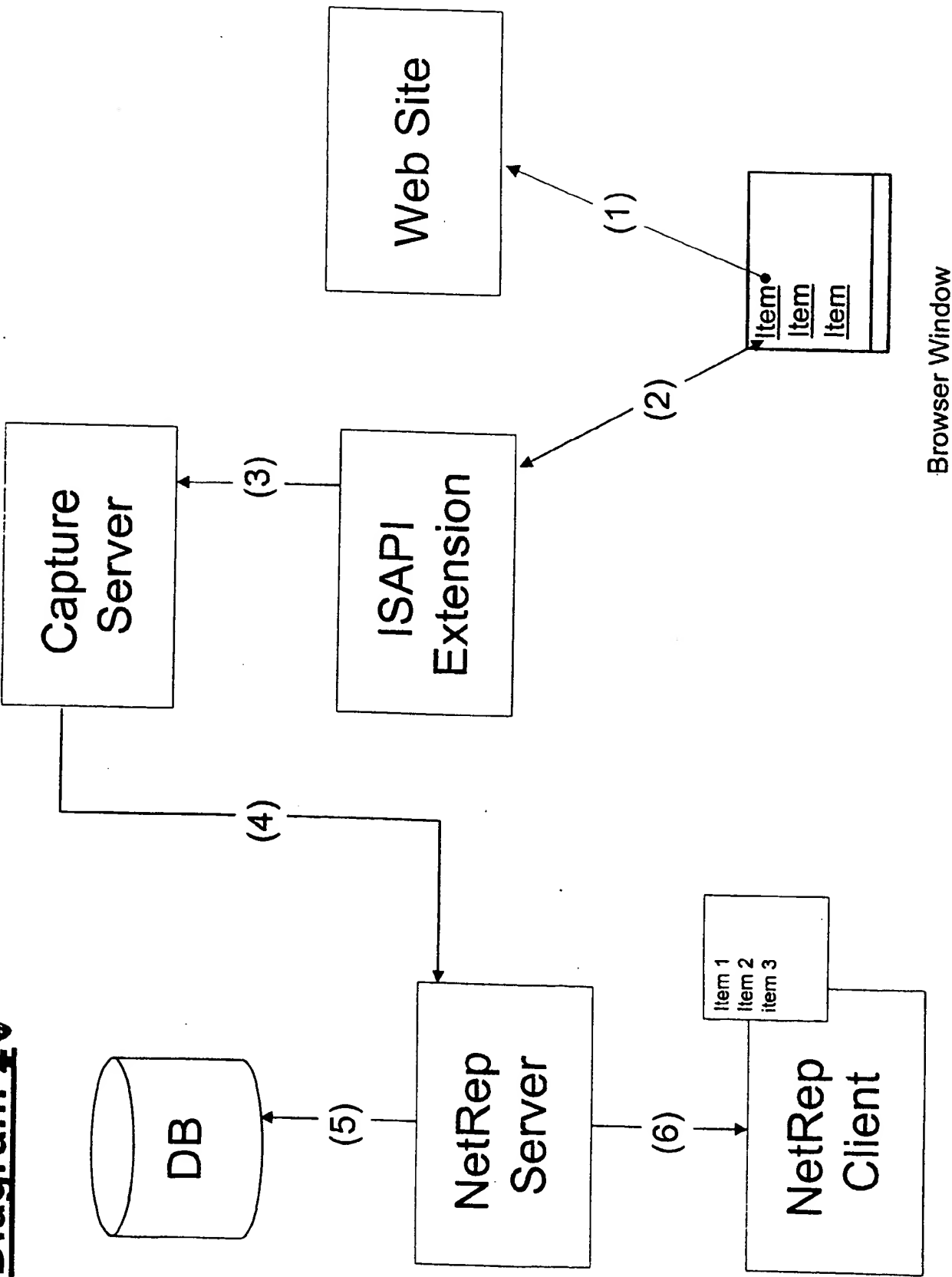
---

Status	ID	IP	Current Page	Date...	Cart T...	Site
AV	:56		13:55 Books at B.co...		0.00	8157...

**Diagram 9**



**Diagram 10**



**iContact - NetRepClient**  
File Edit View Tools Help

**Current Conversation:**

**Outgoing Message**  
Welcome to icontact.com! My name is Dan and I am here live to answer your questions.

**Presets** | **Tour**  
☐ Preset Messages  
☐ Greetings  
☐ Company  
☐ Features  
☐ Customer Service

**Response:**  
☐ Local Messages  
☐ Default Greeting  
☐ ecommerce  
☐ proactive  
☐ colormade hotel  
☐ Net-rep.com  
☐ info?  
☐ pricing

**Engaged Queue:**

0 Engaged | Send | Clear

Status	ID	IP	Current Page	Current...	Cart T...	Site
[Empty Queue]						

**Profiling Queue:**

1 In Visitor List

**Lock Tab**

Status	Page	Site	Current Page
AV	22	27	Books at Book Corner.com - Department

**Personalization:**  
Input notes for selected surfer:

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Company: \_\_\_\_\_

**Notes** | **History** | **Cart** | **Forms**  
 NetRep Lens: Ver: 2.0  
 Sess ID: 946898920 Visitor: 1  
 IC\_ID: 818864031 207.53.91.68  
 Average amt. spent per visit: \$0.00  
 Surfer HAS NOT yet made a purchase in this visit.

**Figure 11.**

For Help, press F1

**Figure 11.**



12/43

Status	Page	Site	Current Page	Cart Total	ID	IP
AV	54	1:16	Books at iBookCorner.com : Lobby	0.00	812247781	207.53.91.30
AV	1:52	2:09	Clothes at iClothesCorner.com : Product	0.00	814747727	207.53.91.28
AV	9:43	22:42	Books at iBookCorner.com : Purchase Confirmation	0.00	815702557	207.53.91.57

Figure 12.

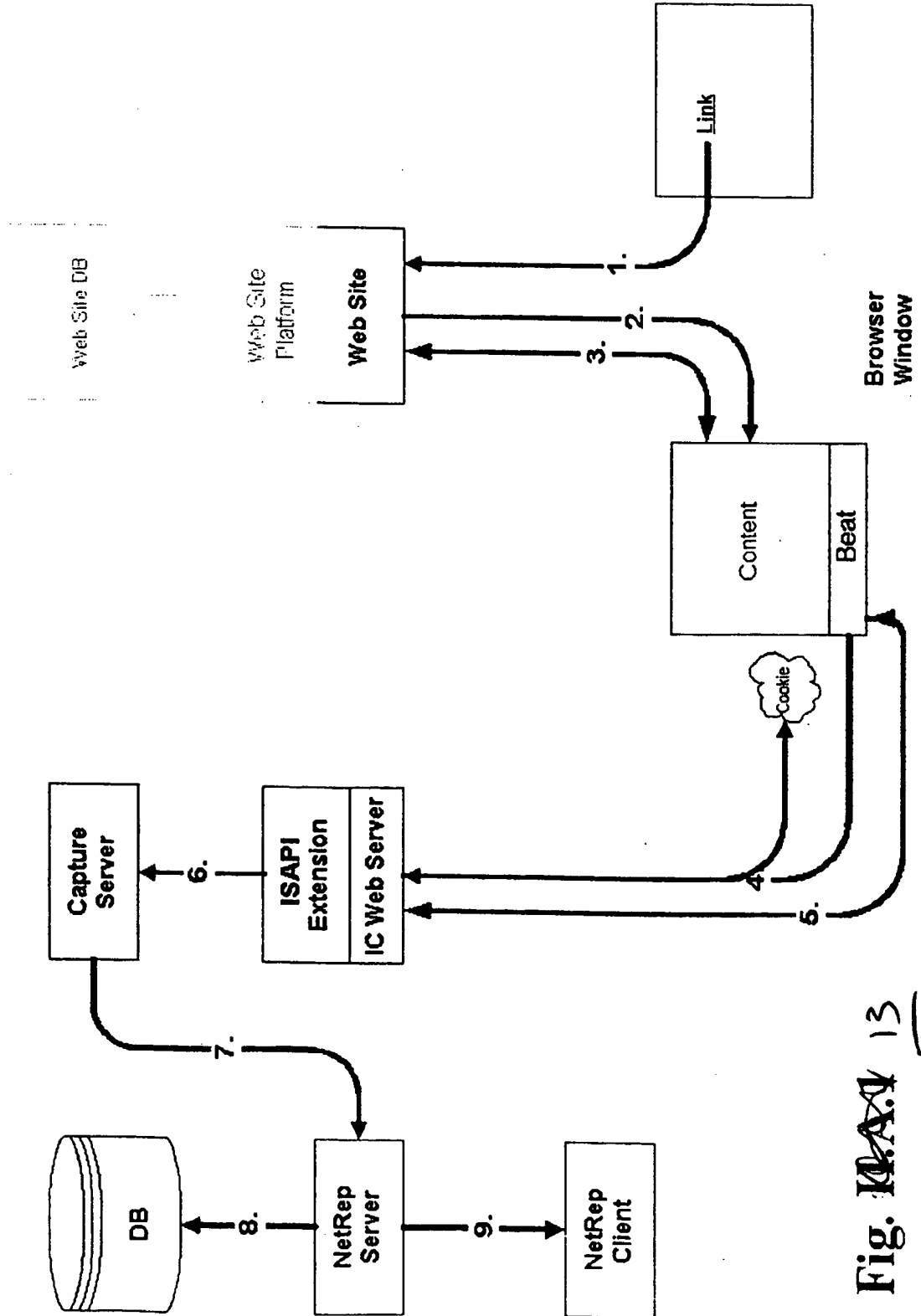


Fig. 13

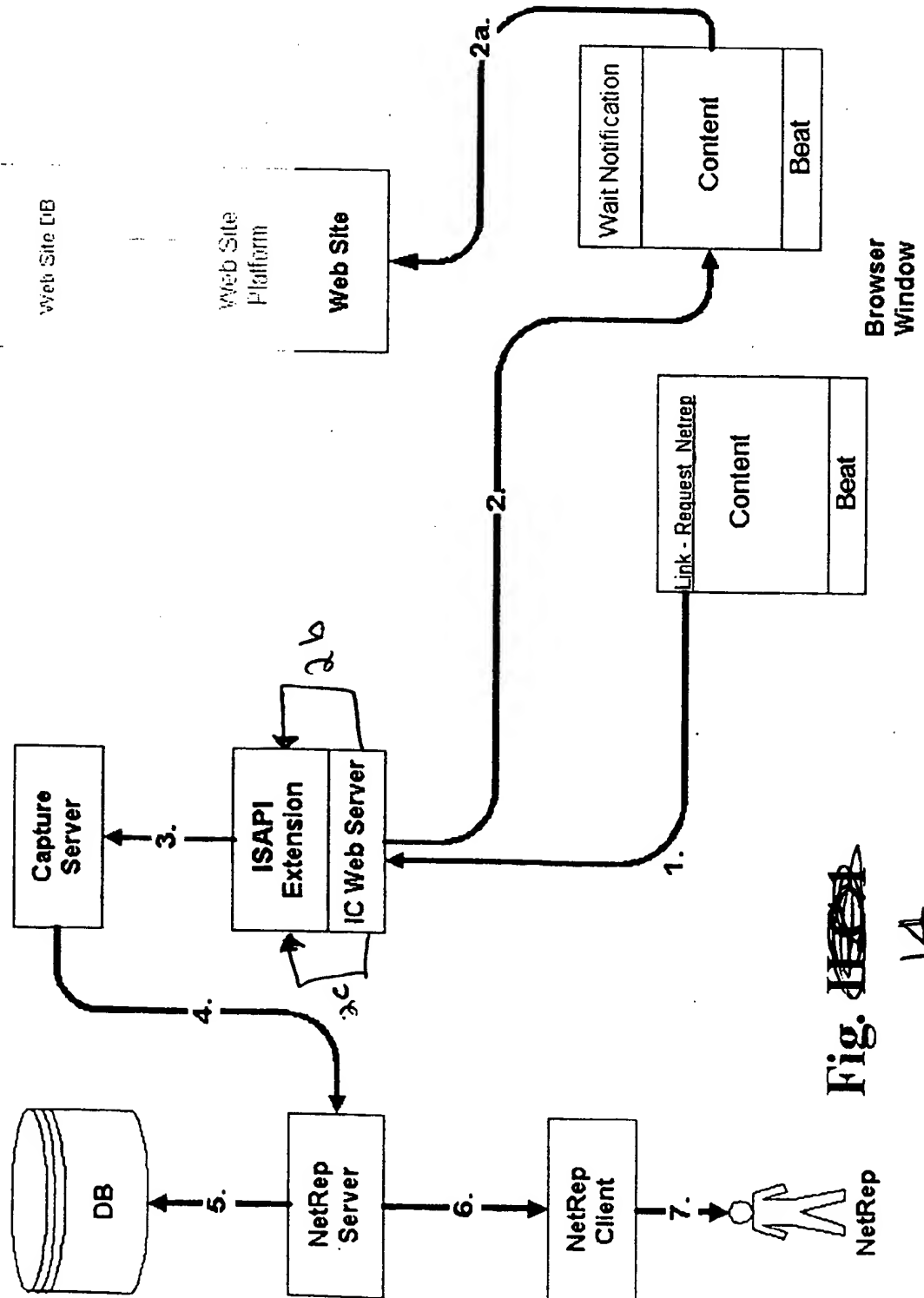


Fig. 14

14

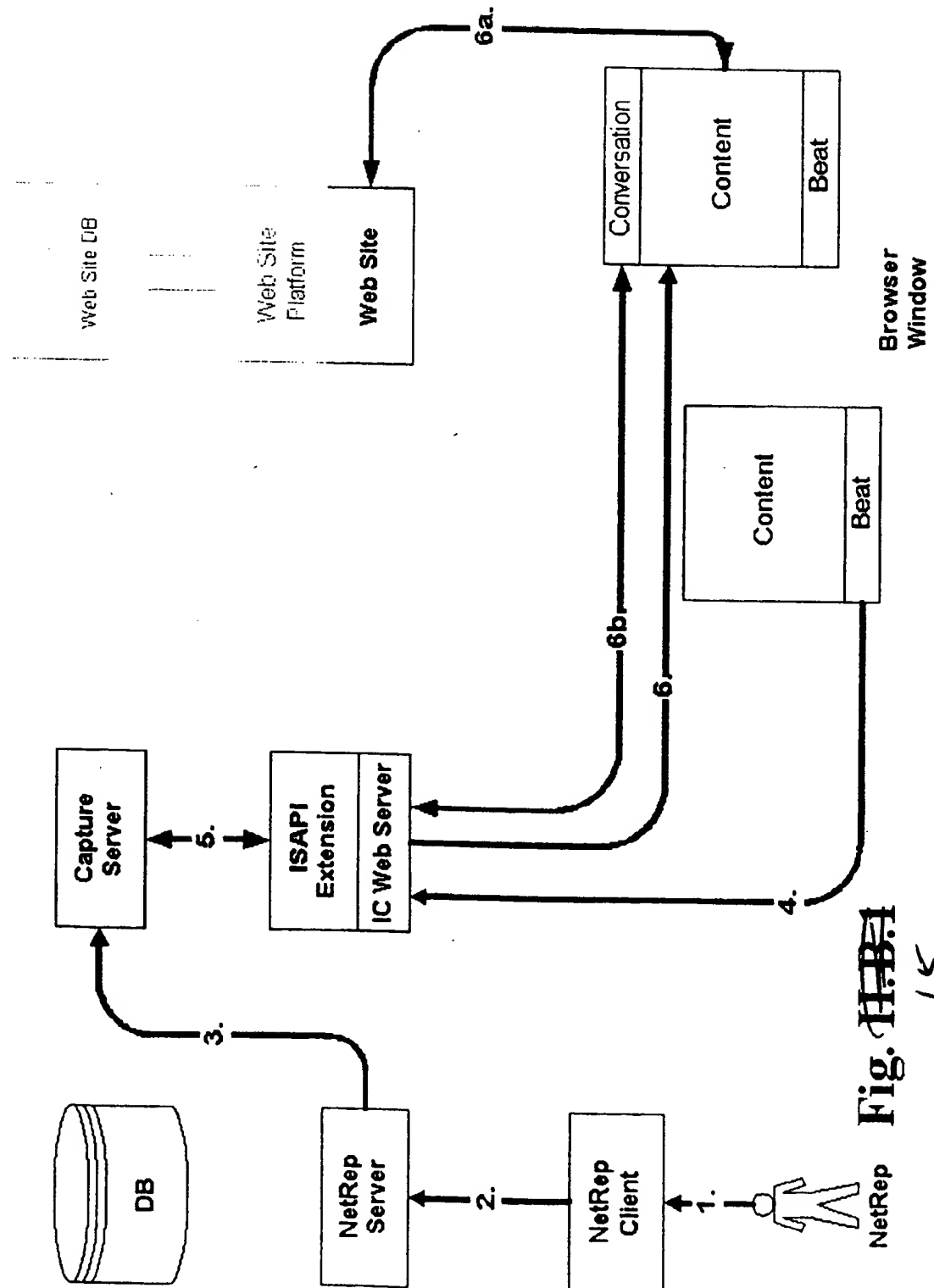


Fig. 15

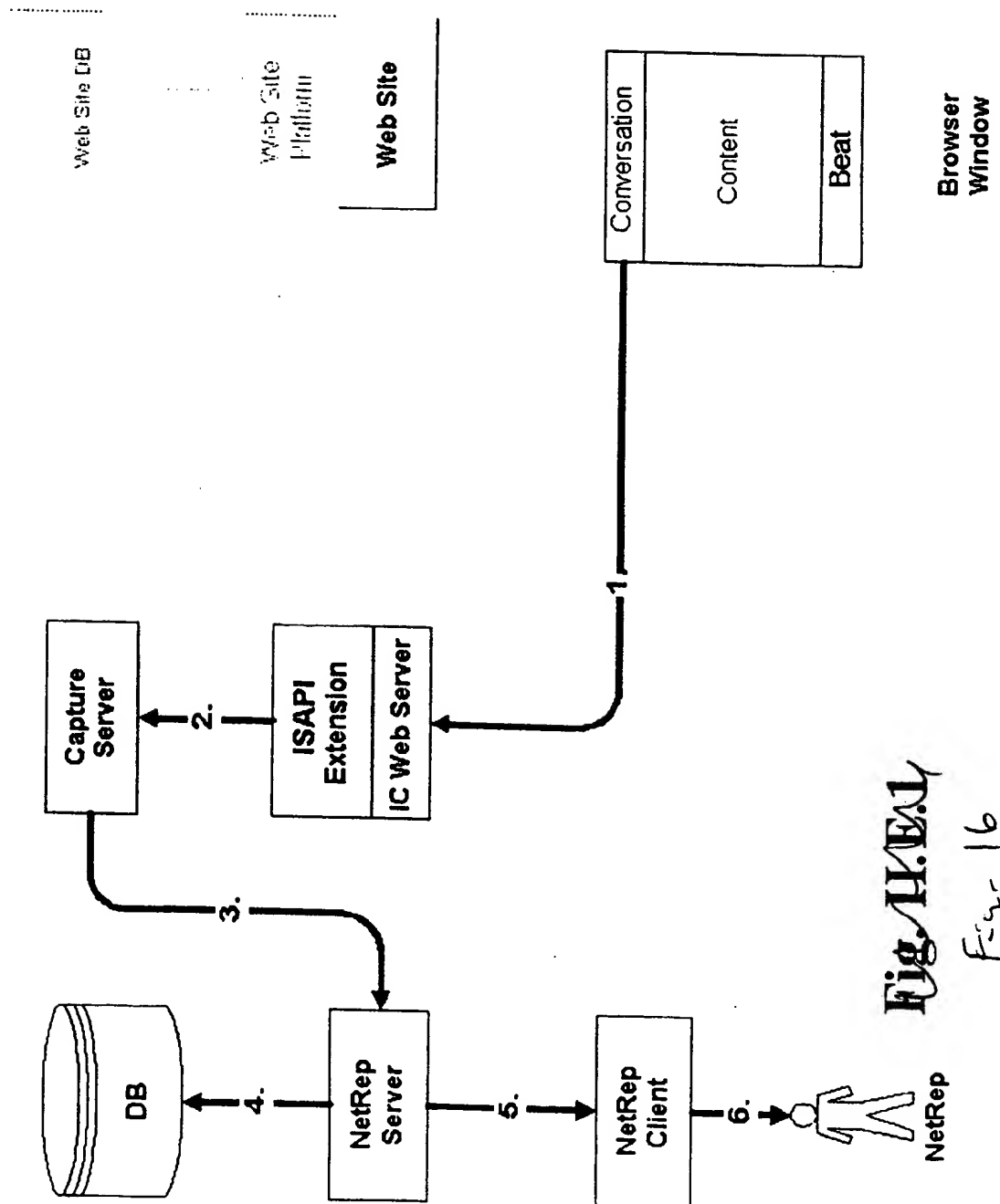
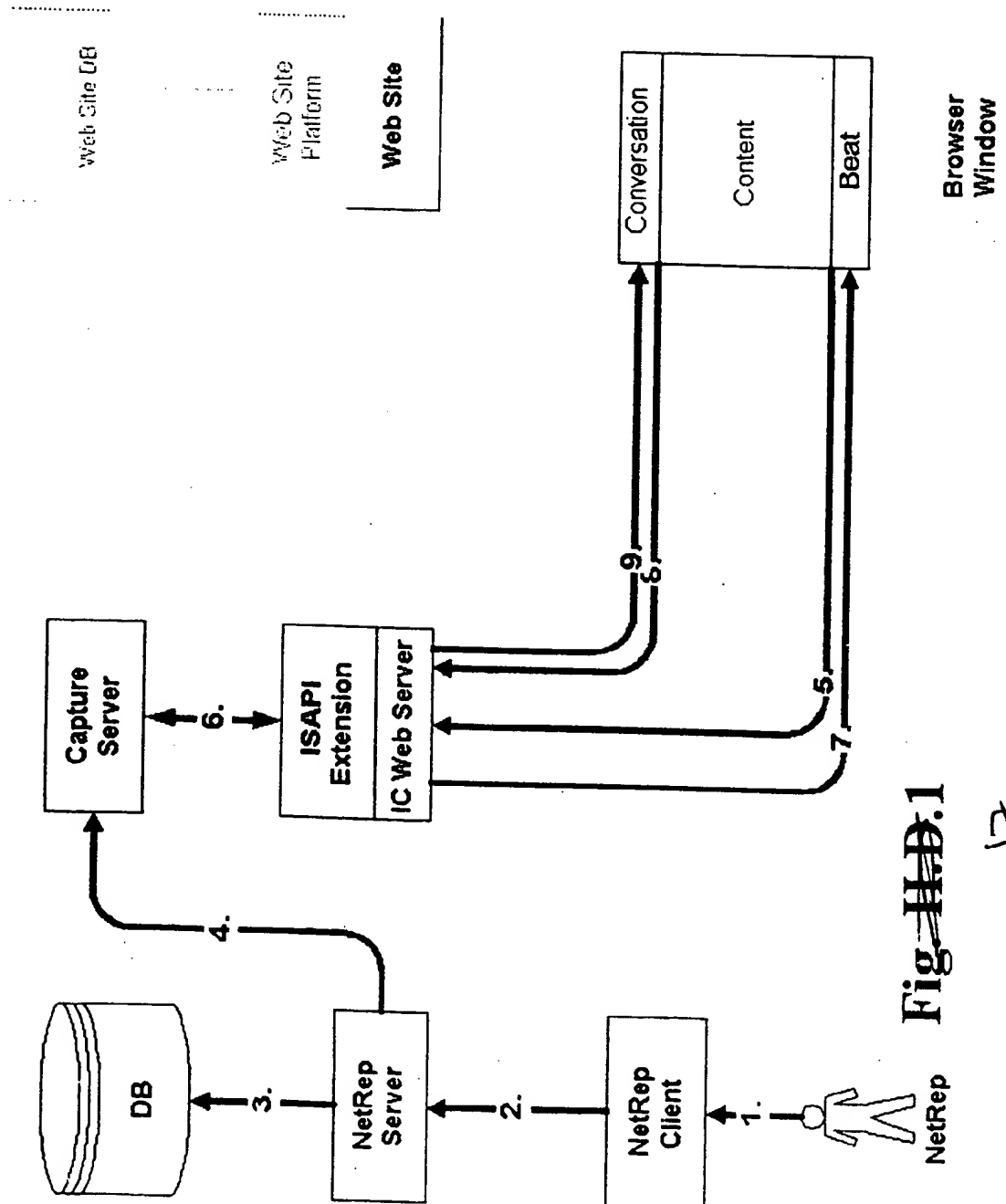
**Fig. 11.E.1**

Fig. 16



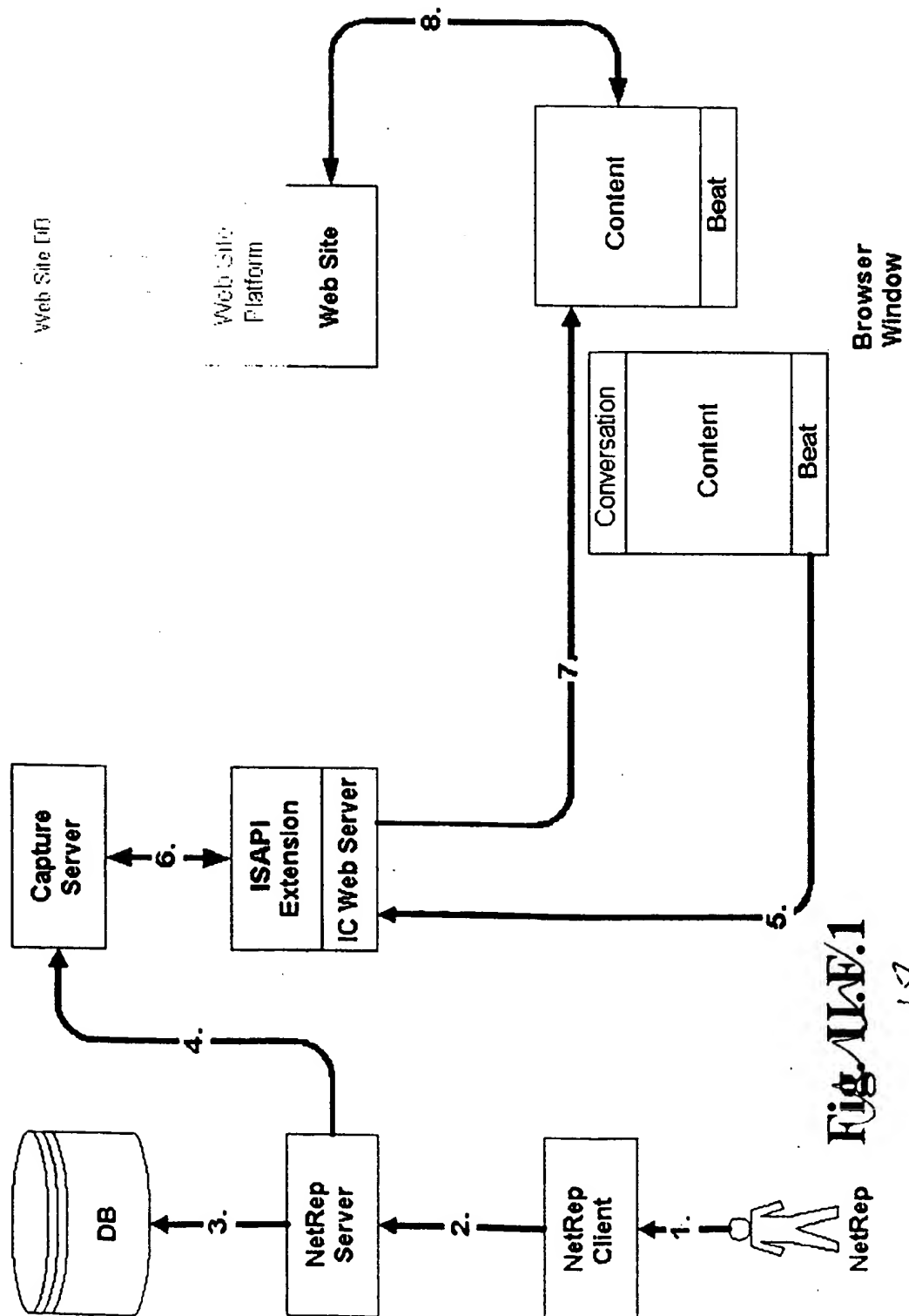


Fig. U.E.1

18

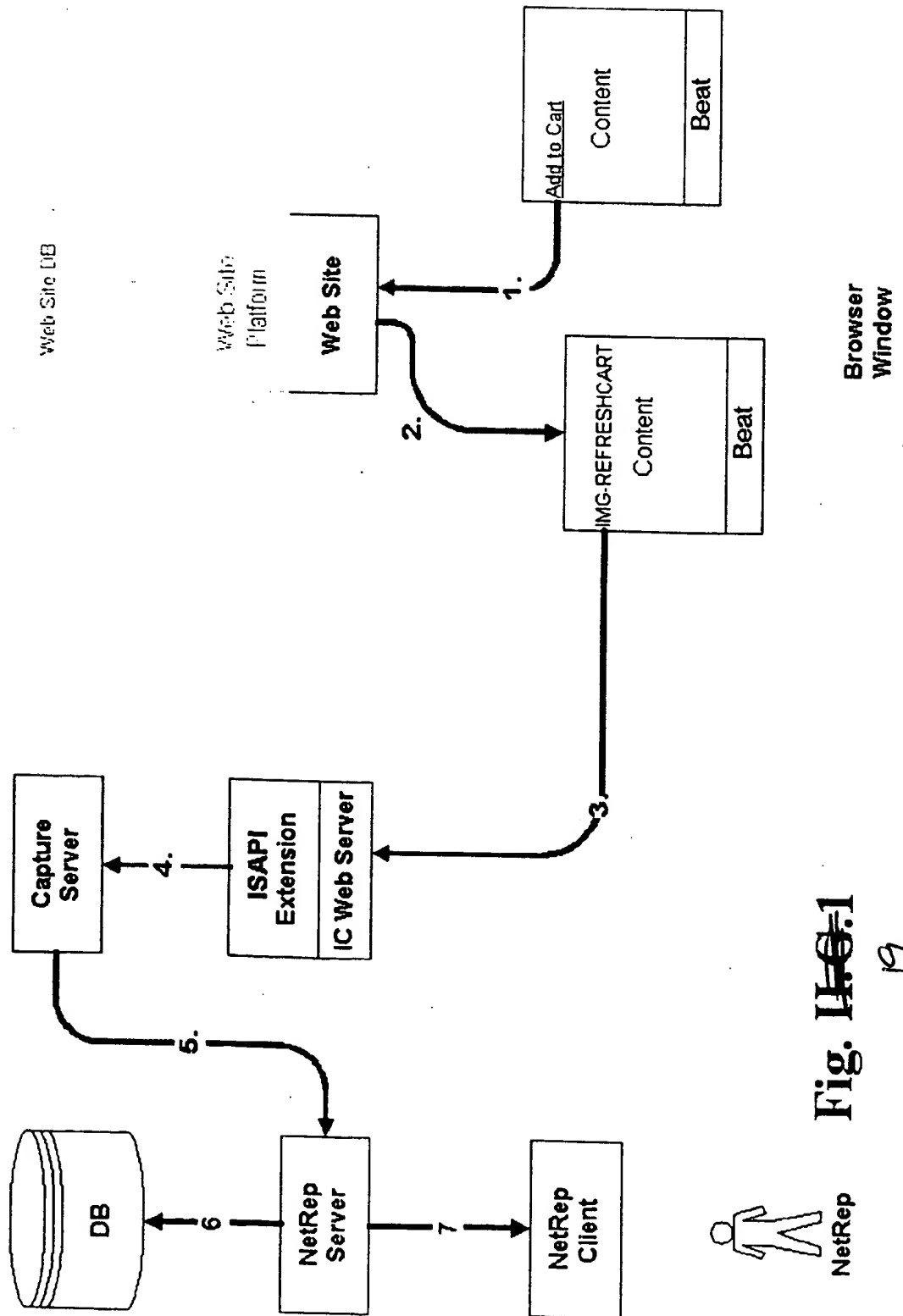


Fig. 19.1

19



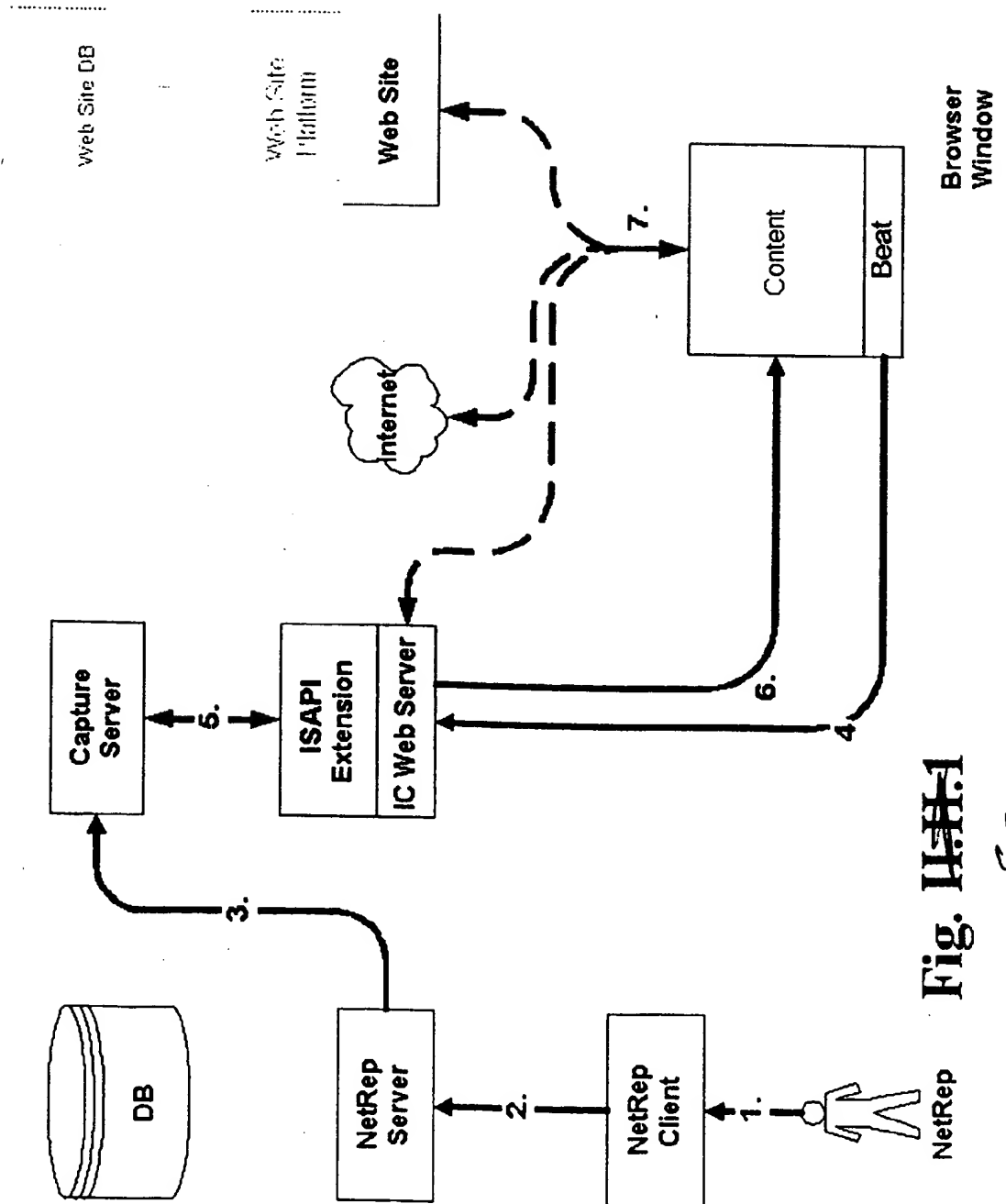


Fig. 11

20

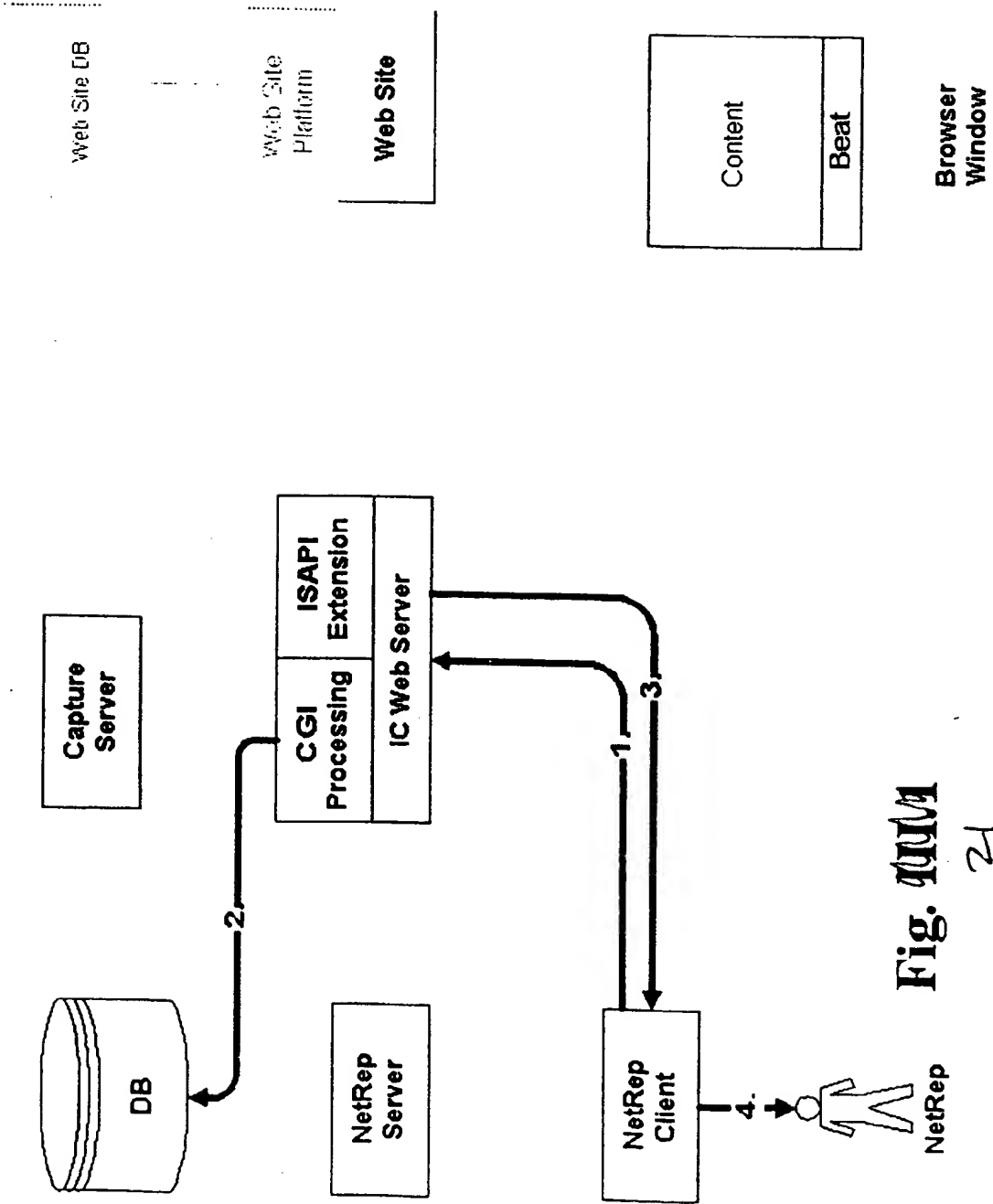


Fig. 4444

21

**iContact - NetRepClient**  
File Edit View Tools Help

---

12:56:49....  
Welcome to icontact.com! My name is Dan and I am here live to answer your questions.

**Outgoing Message**  
Welcome to icontact.com! My name is Dan and I am here live to answer your questions.

**Presets** | **(New) Tour**

☐ Preset Messages  
☐ Greetings  
☐ Company  
☐ Features  
☐ Customer Service

☒ Local Messages  
☒ Default Greeting  
☐ ecommerce  
☐ proactive  
☐ colormade hotel  
☐ Net-rep.com  
☐ info?  
☐ pricing

**Notes** | **History** | **Cart** | **Forms**

<b>NetRep Log:</b>		<b>Ver:</b> 2.0
SessID:	946532617	Visits: 1
IC_ID:	814747727	207.53.91.28
Average amt. spent per visit: \$0.00		
Surfer HAS NOT yet made a purchase in this visit		

No. of Visits	Average Time On Site	Average Pages Visited per visit	Average Time per Page
1	0:0:16	3.00	0:0:15

View History for selected surfer

Visit: 12/30/99 12:43:37 AM

Title of Page Visited      Time on Page

Lock Tab      2 In Visitor List

Status	ID	IP	Current Page	Curr...	Cart V...	Site
	8122	2...	Books at iBook...		0.00	13.30

Status	Page	Site	Current Page	Cart Total	If
AV	14:06	14:23	Clothes at iClothesCorner.co...	0.00	8
AV	2:34	34:56	Books at BookCorner.com : ...	37.89	8

The screenshot displays the NetHep Client application window. The title bar reads "i iconnect - NetHepClient". The menu bar includes "File", "Edit", "View", "Tools", and "Help".

The main interface is divided into several sections:

- Outgoing Message:** A text area containing the message: "Welcome to iconnect.com! My name is Dan and I am here live to answer your questions." Below this is a "Send" button and a "Clear" button.
- Presets:** A section with a "Presets" button and a list of message categories: "Greetings", "Company", "Features", "Customer Service", "Local Messages", "Default Greeting", "e-commerce", "proactive", "colonnade hotel", "Net.rep.com", "info?", and "pricing". Each category has a corresponding icon.
- Notes | History | Cart | Forms:** A navigation bar with buttons for "Notes", "History", "Cart", and "Forms".
- Current Shopping Cart:** A table showing the items in the cart:
 

Product Name	Quantity	Price	Total
Wine Uncorked	1	10.99	\$10.99
Smart Guide to Yoga (Smart Guides)	1	12.95	\$12.95
Look-Alikes Jr. : Find More Than 500 Hidden Everyday Objects	1	13.95	\$13.95
<b>Total</b>			<b>\$37.89</b>
- Status Bar:** A bar at the bottom showing "Status", "ID", "IP", "Current Page", "Current Page", "Cart Total", "Site", and "Page". The values are: Status: AV, ID: 8122..., IP: 2..., Current Page: Books at Book..., Current Page: 0.00, Cart Total: 24.21, Site: 2514, Page: 45/47.

The interface is designed for a user to interact with a website, sending messages and managing a shopping cart.

24/43

815702357 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address http://207.53.91.160:8080/vin/vicx.dll?cap?%2Famazon%2Fdefault%2E.asp&815702357

**Message from NetRep**

> Welcome to ic-mail.com! My name is Dan and I am here live to answer your questions.

**Your Message to NetRep**

**icmail**  
enabled by  
icmail.com  
Patent Pending

**icBookCorner**

CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH & FITNESS

**Shopping Basket**

You have 3 items in your shopping basket:  
To change an item's quantity, edit the number and press "Update Basket".  
To Continue Shopping, use the Departments on the top to navigate through the site.

Label Name	Unit Price	Today's Qty	Today's Price	Extra Total Disc.	Total Price	Remove Item
007 Wine Uncorked	\$10.99	1	\$10.99	\$0.00	\$10.99	Remove Item
002 Smart Guide to Yoga (Smart Guides)	\$12.95	1	\$12.95	\$0.00	\$12.95	Remove Item
101 Look-Alive Tr	\$13.95	1	\$13.95	\$0.00	\$13.95	Remove Item

**SEARCH**

All Products

**BROWSE**

- Books
  - Bestsellers... Computers...
  - Kids... Business...
  - Music
  - New Releases... Top Sellers... Classical...
  - Soundtracks...
  - Video

Done Internet

**Figure 22c.**

iconnect - NetRepClient  
File Edit View Tools Help

9-1-99

13:14:58...  
Welcome to iconnect.com! My name is Dan and I am  
here live to answer your questions.

13:15:18...  
Hi Dan

13:17:28...  
I'm looking for books on cooking, do you know where I  
can find them?

Outgoing Message

Presets Tour

Tour Guide  
☐ Completed Order Form Pages  
☐ Completed Order Form with i  
☐ Books and Music at iBookC  
☐ Shipping Page  
☐ Payment Page  
☐ Clothes at iClothesCorner.co  
☐ Shipping Page  
☐ Payment Page

Notes History Cart Forms

iBookC Items Visits: 1

Session ID: 946592617 Visits: 1

IC\_ID: 814747727 207.53.91.28

Average amt. spent per visit: \$0.00

Surfer HAS NOT yet made a purchase  
in this visit.

View Cart Details for selected surfer:  
visits 12/30/99 12:43:37 AM

Current Shopping Cart  
Shopping Cart is Empty

Lock Tab 1 In Visitor List

2 Engaged Send Dear

Link Release Engage

Status	ID	IP	Current Page	Current...	Cart T...	Sta
	8147...	2...	Books at iBook...	0.00	35.00	
	8157...	2...	Books at iBook...	0.00	55.41	

Status	Page	Sta	Current Page
PE	5:13	34:15	Books at iBookCorner.com: Lobby

For Help, press F1

Figure 22d.

815702357 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address http://207.53.91.160:8080/bin/cx/dll7cep72f-arazon22f-default2E.asp815702357

**Message from NetRep**

> Welcome to ic-mail.com! My name is Dan and I am here live to answer your questions.

Type your message to the NetRep in this box.  
Hit your 'Enter' key or click 'Send' to send.

Do you have any books on Computers?

Send Reset

created by  
**icontact**  
icontact.com  
Patent Pending

**iBookCorner**

BOOKS MUSIC

CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH & FITNESS

**Shopping Basket**

You have 3 items in your shopping basket:  
To change an item's quantity, edit the number and press "Update Basket".  
To Continue Shopping, use the Departments on the top to navigate through the site.

Label Name	Unit Price	Today's Qty	Price	Extra Total	Disc.	Price
007 Wine Uncorked	\$10.99	1	\$10.99	\$0.00	\$10.99	<a href="#">Remove item</a>
002 Smart Guide to Yoga (Smart Guides)	\$12.95	1	\$12.95	\$0.00	\$12.95	<a href="#">Remove item</a>
101 Look-Aller	\$13.95	1	\$13.95	\$0.00	\$13.95	<a href="#">Remove item</a>

**SEARCH**

All Products

**BROWSE**

- Books
  - Bestsellers, Computers...
  - Kids, Business...
- Music
  - New Releases, Top Sellers, Classical, Soundtracks...
- Video
  - New, Top Sellers, Block...

Internet

Done

Figure 22e.

i contact - NetRepClient File Edit View Tools Help		Presets    Tour		Notes    History    Cart    Forms																																		
.....13:12:41..... Welcome to ic-mail.com! My name is Dan and I am here live to answer your questions.		<input type="checkbox"/> Tour Guide <input type="checkbox"/> Completed Order Form with I <input type="checkbox"/> Books and Music at iBook		NetRep Lens    Ver: 2.0 SessID: 946531384    Visits: 13 IC ID: 815702357    207.93.91.67 Average amt. spent per visit: \$34.14 Surfer HAS made a purchase in this visit!																																		
.....13:22:19..... Do you have any books on Computers?		<input type="checkbox"/> Computer Section <input type="checkbox"/> Shipping Page <input type="checkbox"/> Payment Page <input type="checkbox"/> Clothes at iClothesCorner.co		View Cart Details for selected surfer: Visits    12/30/99 12:23:04 AM																																		
Outgoing Message I'm going to push you to our Computer section.		<input type="button" value="Link"/> <input type="button" value="Push"/>		Current Shopping Cart Product Name    Quantity    Price    Total Wine Uncorked 1    10.99    \$10.99 Smart Guide to																																		
2    Engaged    Send    Clear		<input type="button" value="Release"/> <input type="button" value="Engage"/>		<input type="button" value="Lock Tab"/> 1 In Visitor List																																		
<table border="1"> <thead> <tr> <th>Status</th> <th>ID</th> <th>IP</th> <th>Current Page</th> <th>Current Page</th> <th>Cart I...</th> <th>Site</th> <th>Status</th> <th>Page</th> <th>Site</th> <th>Current Page</th> </tr> </thead> <tbody> <tr> <td></td> <td>8147...</td> <td>2...</td> <td>Books at Book...</td> <td>0.00</td> <td>37:31</td> <td>36:38</td> <td>PE</td> <td>7:36</td> <td>Books at BookCorner.com : Lobby</td> <td>Cur</td> </tr> <tr> <td></td> <td>8157...</td> <td>2...</td> <td>Books at Book...</td> <td>0.00</td> <td>58:04</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Status	ID	IP	Current Page	Current Page	Cart I...	Site	Status	Page	Site	Current Page		8147...	2...	Books at Book...	0.00	37:31	36:38	PE	7:36	Books at BookCorner.com : Lobby	Cur		8157...	2...	Books at Book...	0.00	58:04									
Status	ID	IP	Current Page	Current Page	Cart I...	Site	Status	Page	Site	Current Page																												
	8147...	2...	Books at Book...	0.00	37:31	36:38	PE	7:36	Books at BookCorner.com : Lobby	Cur																												
	8157...	2...	Books at Book...	0.00	58:04																																	

**Figure 22f.**

For Help, press F1



815702357 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address http://207.53.91.160:8080/bn/cx/cf7csp7a2f/amazon%2Fdefault%2E.asp&815702357

Go

---

**Message from NetRep**

> Welcome to iconfact.com! My name is Dan and I am here live to answer your questions.

**Your Message to NetRep**

> Do you have any books on Computers?

---

enabled by  
**iconfact**  
iconfact.com  
Patent Pending

**iBookCorner**

BOOKS MUSIC

CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH & FITNESS

**SEARCH**

All Products

**BROWSE**

- Books
- Bestsellers, Computers...
- Kids, Business...
- Music
- New Releases, Top Sellers, Classical...
- Soundtracks...
- Video

**Computer - Professional Programming books**

**Automated Software Testing: Introduction, Management, and Performance**

First and foremost, Automated Software Testing presents a methodology for test managers called Automated Testing Lifecycle Management (ATLM).

**Software for Use: A Practical Guide to the Models and Methods of Usage-Centered Design (ACM Press)**

For anyone who designs

**SOFTWARE FOR USE**

Done

Figure 22g.

**iconcontact - NetRepClient**  
File Edit View Tools Help

**iconcontact**

.....13:51:27.....  
Welcome to iconcontact.com! My name is Dan and I am  
here live to answer your questions.

.....13:52:38.....  
Do you have any books on Computers?

.....13:53:57.....  
Can you please release me?

**Presets (49) Tour**

**Tour Guide**

Completed Order Form Pages  
Completed Order Form with [Books and Music at BookD.]

**Notes | History | Cart | Forms**

NetRep Lem: User: 2.0  
SessionID: 946536548 Visits: 14  
IC\_ID: 815702357 207.53.91.67  
Average amt. spent per visit: \$31.14  
Surfer HAS NOT yet made a purchase  
In this visit

Are you sure you want to release this surfer?  
☒ Yes ☐ No

**Outgoing Message**

2 Engaged Send Clear

Link Push Engage  
☒ Release

Current Shopping Cart  
Shopping Cart is Empty

Lock Tab ☐ 0 In Visitor List

Status	ID	IP	Current Page	Current Page	Site	Current Page
	8157...	2...	Books at BookD...	0.00	3:18	
	8147...	2...	Books at BookD...	0.00	1:08:49	

For Help, press F1

**Figure 22h.**

**Figure 22h.**

**For Help, press F1**

The screenshot displays the NetRepClient application window. The title bar reads "icontact - NetRepClient". The menu bar includes "File", "Edit", "View", "Tools", and "Help". The main interface is divided into several sections:

- Outgoing Message:** A text area containing a message from "13:14:58" to "13:15:18" and "13:17:28". The message reads: "Welcome to icontact.com! My name is Dan and I am here five to answer your questions. Hi Dan I'm looking for books on cooking, do you know where I can find them?". Below this is a "Send" button.
- Presets (Tour):** A list of links including "Tour Guide", "Completed Order Form with L", "Books and Music at BookC", "Shipping Page", "Payment Page", and "Clothes at ClothesCorner.co".
- Notes | History | Cart | Forms:** A section on the right containing:
  - NetRepStats:** Shows "Visits: 2.0" and "Visitors: 14".
  - IC\_ID:** 815702357, 207.53.91.67.
  - Average amt. spent per visit:** \$31.14.
  - Surfer HAS NOT yet made a purchase in this visit.**
  - View Cart Details for selected surfer:** Shows "Visits: 12/30/99 1:49:08 AM".
  - Current Shopping Cart:** Shows "Shopping Cart is Empty".
  - Lock Tab:** A checkbox labeled "In Visitor List".
- Table:** A table with columns: Status, ID, IP, Current Page, Curr..., Cart T..., Site. The first row shows: Status: 1, ID: 8147..., IP: 2..., Current Page: Books at Book..., Cart T...: 0.00, Site: 1:10:42.

The caption "Figure 221." is located to the right of the screenshot.

The screenshot displays the NetRepClient application. The main window shows a web page with a welcome message from 'icontact.com!'. The sidebar on the left contains a 'Presets' section with a 'Tour Guide' link and a 'Completed Order Form' link. The 'Completed Order Form' link is highlighted, showing a list of items: 'Completed Order Form with [Book and Music at Books]', 'Shipping Page', 'Payment Page', and 'Clothes at ClothesCorner.co'. The 'Tour Guide' link is also visible. The 'Completed Order Form' link is highlighted, showing a list of items: 'Completed Order Form with [Book and Music at Books]', 'Shipping Page', 'Payment Page', and 'Clothes at ClothesCorner.co'. The 'Tour Guide' link is also visible. The 'Completed Order Form' link is highlighted, showing a list of items: 'Completed Order Form with [Book and Music at Books]', 'Shipping Page', 'Payment Page', and 'Clothes at ClothesCorner.co'. The 'Tour Guide' link is also visible.

The screenshot displays the NetRepClient application window. At the top, the title bar reads "i: iconnect - NetRepClient". The menu bar includes "File", "Edit", "View", "Tools", and "Help". The main interface is divided into several sections:

- Outgoing Message:** A text area containing a message from "Dan" to "i: iconnect.com! My name is Dan and I am here live to answer your questions." The message is timestamped "13:15:18". Below it, a response is shown: "Hi Dan", "I'm looking for books on cooking, do you know where I can find them?", timestamped "13:17:28". A third message follows: "I will push you to our cooking section.", timestamped "14:01:03".
- Tour Guide:** A section with a "Presets" button and a "Tour" button. It lists several items: "Completed Order Form Pages", "Books and Music at BookC", "Shipping Page", "Payment Page", and "Clothes at ClothesCorner.co".
- Notes:** A section with a "Notes" button and a "History" button. It contains a "HelpRep Lens" section with "Vers: 2.0", "SessID: 94536548", "Visits: 15", and "IC ID: 815702357". Below this, it states "Average amt. spent per visit: \$31.14" and "Surfer HAS NOT yet made a purchase in this visit."
- Cart:** A section with a "Cart" button and a "Forms" button. It contains a "Lock Tab" button and a "1 In Visitor List" indicator.
- Input notes for selected surfer:** A section with fields for "Name:", "Title:", and "Company:", each followed by a "Link" button and a "Push" button. There is also a "Release" button and an "Engage" button.
- Status Table:** A table with columns: "Status", "ID", "IP", "Current Page", "Curr...", "Cart T...", "Site", "Status", "Page", "Site", "Current Page", and "Cum". The table contains one row with the following data: "Status", "8147...", "2...", "Books at Book...", "0.00", "1:17:33", "AV", "1:37", "2:03", "Books at BookCorner.com : Department", and "Cum".

The bottom of the window shows a "Help" button and a "Web" button.

http://207.53.91.160:8080/amazon/iconnect/iconnect\_frame.html?http://207.53.91.160:8080/amazon - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address http://207.53.91.160:8080/amazon/iconnect/iconnect\_frame.html?http://207.53.91.160:8080/amazon/default.asp?sid=1

CONTACT MAIL

# iBookCorner

CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH & FITNESS

BOOKS MUSIC

## Shipping Information

If you need to change any items, please go to the shopping basket to correct them.

If the order is correct, then please fill out the shipping instructions below and press the "Total" button. This will show you what your total cost (including tax and shipping) will be. If the total is satisfactory, then you'll be able to complete the purchase.

### Shipping Method

Overnight

### Shipping Address

Name: John Doe

Street: 1313 First Ave

City:

State: ZIP Code: 06611

Phone:

Continue Reset

### SEARCH

All Products GO

### BROWSE

- Books
  - Bestsellers, Computers...
  - Kids, Business...
- Music
  - New Releases, Top Sellers, Classical...
- Video
  - DVDs, Top Sellers, New Releases, Kids & Family...
- Auctions
  - Books, CDs, Photo Equipment...
- Electronics
  - TVs, Cameras...
- Computer Add-Ons...
  - DVD Players...

Done

Figure 23c.

iconnect - NetRepClient  
File Edit View Tools Help

☐ Presets ☐ Tour ☐ Notes ☐ History ☐ Cart ☐ Forms

Surfer HAS NOT yet made a purchase  
In this visit:

Information entered by the Surfer:  
 • Ship to city must be a string between 1 and 100 characters  
 • Ship to zip must be a string between 1 and 100 characters  
 • Ship to phone must be a string between 1 and 100 characters

Error:

Name: John Doe  
 Address: 1313 First Ave  
 City: State:  
 Zip: 06611  
 Phone:

☐ Lock Tab ☐ In Visitor List

Completed Order Form Pages  
 Completed Order Form with L  
 Books and Music at BookC  
 Shipping Page  
 Payment Page  
 Clothes at ClothesCorner.co

Link Release Engage Push

Engaged Send Clear

Outgoing Message  
 Welcome to iconnect.com! My name is Dan and I am here live to answer your questions.  
 .....13:15:18.....  
 Hi Dan  
 .....13:17:28.....  
 I'm looking for books on cooking, do you know where I can find them?  
 .....14:01:03.....  
 I will push you to our cooking section.

Status ID IP Current Page Current Page Cart Total Site  
 8147.. 2.. Books at Book... 0.00 1:28:24 AV 1354 Books at BookCorner.com: Shipping Or...

For Help, press F1

Figure 23d.

iconnect - NetRepClient  
File Edit View Tools Help

14:25:09-----  
Welcome to iconnect.com! My name is Dan and I am  
here live to answer your questions.

Outgoing Message  
You left out your City, State and Phone Number. If  
you send them to me, I can complete the form and  
send it back to you.

Presets (4) Tour  
 Tour Guide  
 Completed Order Form with t  
 Books and Music at BookCz  
 Shipping Page  
 Payment Page  
 Clothes at ClothesCorner.co

Notes | History | Cart | Forms  
 NetRepClient Ver: 2.0  
 SessID: 946536548 Visits: 15  
 IC\_ID: 815702357 207.53.91.67  
 Average amt. spent per visit: \$31.14  
 Surfer HAS NOT yet made a purchase  
 in this visit.

Information entered by the Surfer  
 • Ship to city must be a string between 1 and 100 characters  
 • Ship to zip must be a string between 1 and 100 characters  
 • Ship to phone must be a string between 1 and 100 characters

Error:

Link Release Push Engage  
 2 Engaged Send Clear  
 Lock Tab 0 In Visitor List

Status	ID	IP	Current Page	Cart I...	Site	Status	Page	Site	Current Page	Cur
	8157...	2...	Books at Book...	0.00	25:21					
	8147...	2...	Books at Book...	0.00	1:40:51					

For Help, press F1

Figure 23e.



815702357 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address <http://207.53.91.160:8080/bin/ckc.dll?cap7http%3A%2F%2F207%2E53%2E91%2E160%3A8080%2Famazon%2Fshipping%2Easp%3F%2F815702357> Go

**Your Message to NetRep**

> You left out your City, State and Phone Number. If you send them to me, I can complete the form and send it back to you.

> Welcome to icontact.com! My name is Dan and I am here live to answer your questions.

created by  
**icontact**  
icontact.com  
Patent Pending

**Message from NetRep**

**icontact**

**iBookCorner**

BOOKS MUSIC

CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH & FITNESS

SEARCH

All Products GO

BROWSE

- Books
  - Bestsellers, Computers...
  - Kids, Business...
- Music
  - New Releases, Top Sellers, Classical, Soundtracks...
- Video
  - New, Top Culture Shows

We are sorry, but we are unable to process your request:

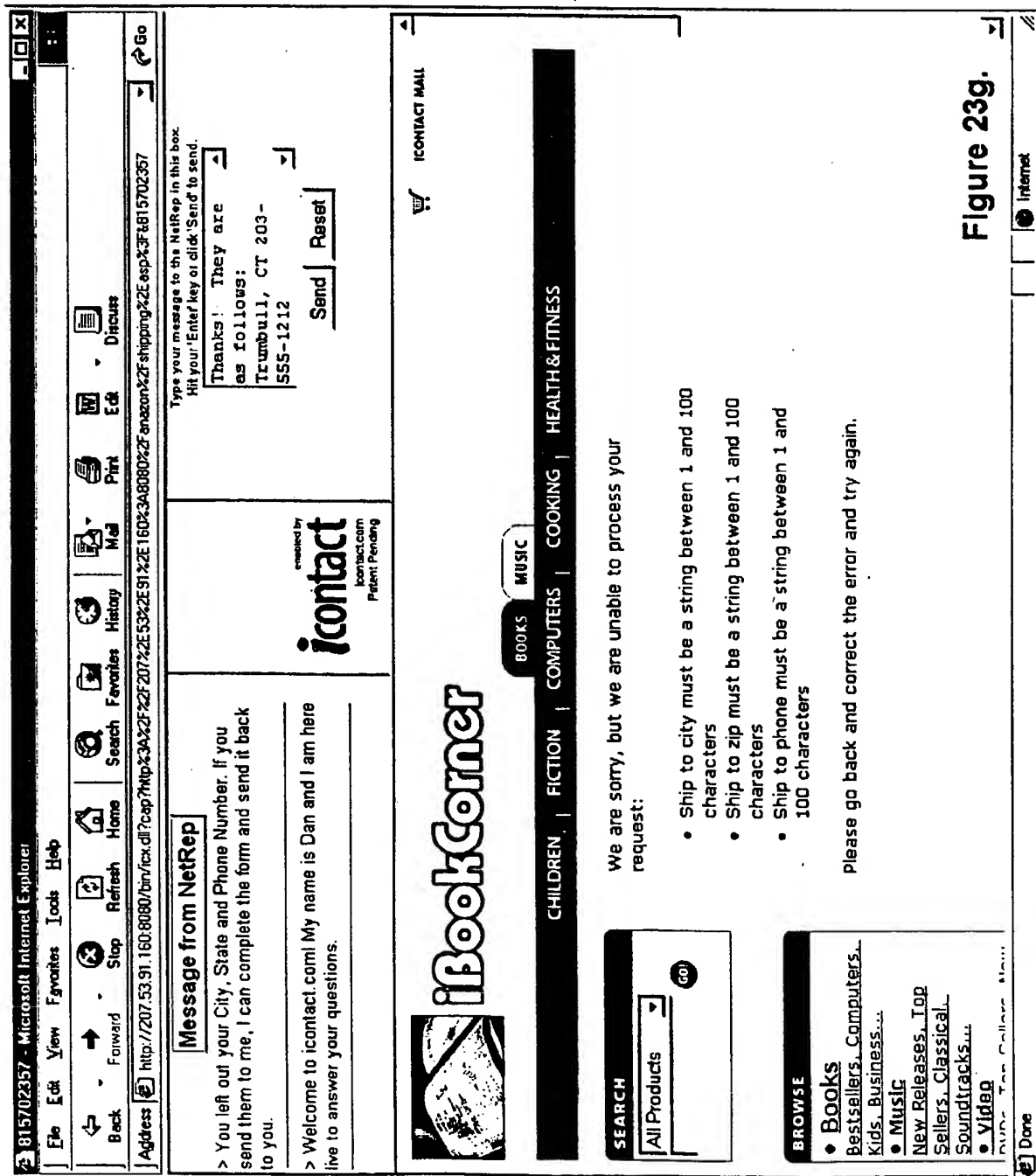
- Ship to city must be a string between 1 and 100 characters
- Ship to zip must be a string between 1 and 100 characters
- Ship to phone must be a string between 1 and 100 characters

Please go back and correct the error and try again.

icontact MAIL

Figure 23f.

Done



The screenshot displays the NeffRepClient application window. The title bar reads "NeffRepClient - NeffRepClient". The menu bar includes "File", "Edit", "View", "Tools", and "Help".

The main content area is divided into several sections:

- Presets:** A list of saved forms including "Tour Guide", "Completed Order Form with...", "Books and Music at BookCr...", "Shipping Page", "Payment Page", and "Clothes at ClothesCamer.co".
- Notes:** A text area containing a welcome message and instructions: "Welcome to contact.com! My name is Dan and I am here live to answer your questions. ...14:27:19... You left out your City, State and Phone Number. If you send them to me, I can complete the form and send it back to you. ...14:29:53... Thanks! They are as follows: Trumbull, CT 203-555-1212".
- History:** A list of recent visits with details: "NeffRep Lens", "Visit: 2.0", "SessID: 946536548", "Visits: 15", "IC\_ID: 815702357", "207.59.91.67", "Average amt. spent per visit: \$31.14", and "Surfer HAS NOT yet made a purchase in this visit".
- Cart:** A section titled "Information entered by the Surfer" containing a list of items: "Ship to city must be a string between 1 and 100 characters", "Ship to zip must be a string between 1 and 100 characters", and "Ship to phone must be a string between 1 and 100 characters".
- Form Controls:** Buttons for "Link", "Push", "Release", "Engage", and "Clear".

At the bottom, there is a table showing the status of various forms:

Status	ID	IP	Current Page	Current Page	Cart T...	Site
	8157...	2...	Books at Book...	0.00	28:47	
	8147...	2...	Books at Book...	0.00	1:44:17	

The status bar at the bottom right indicates "For Help, press F1".

iconnect - NetRepClient

File Edit View Tools Help

14:25:09...  
Welcome to iconnect.com! My name is Dan and I am here live to answer your questions.

14:27:19...  
You left out your City, State and Phone Number. If you send them to me, I can complete the form and send it back to you.

14:29:53...  
Thanks! They are as follows: Trumbull, CT 203-555-1212

Outgoing Message

2 Engaged

Send

Clear

Presets Tour

Tour Guide

Completed Order Form Pages

Books and Music at BookCt

Shipping Page

Payment Page

Clothes at iClothesCorner.co

Notes History Cart Forms

Surfer is on Shipping Page. If pushing, remember to push Shipping page

Information entered by NetRep

Name: John Doe

Address: 1313 First Ave

City: Trumbull

State: CT zip: 06611

E-mail:

Phone: 203-555-1212

Lock Tab

Amex Discover

0 In Visitor List

Status	ID	IP	Current Page	Cum...	Cart T...	Site	Status	Page	Site	Current Page	Cum
	8157...	2...	Books at Book...	0.00	30.08						
	8147...	2...	Books at Book...	0.00	1:45.38						

For Help, press F1

Figure 23I.

Iconnect - NetRepClient  
File Edit View Tools Help

64 93

**Notes** | **History** | **Cart** | **Forms**

NetRep Lens: Ver: 2.0  
 SessID: 946536548 Visitor: 15  
 IC\_ID: 815702357 207.53.91.67  
 Average amt. spent per visit: \$31.14  
 Surfer HAS NOT yet made a purchase in this visit.

**Information entered by the Surfer**

- Ship to city must be a string between 1 and 100 characters
- Ship to zip must be a string between 1 and 100 characters
- Ship to phone must be a string between 1 and 100 characters

Error:

**Presets** | **Tour**

Tour Guide  
 Completed Order Form with [ ]  
 Books and Music at BookC[ ]  
 Shipping Page  
 Payment Page  
 Clothes at ClothesCorner.co

Link  Release Engage

**Outgoing Message**

You left out your City, State and Phone Number. If you send them to me, I can complete the form and send it back to you.

.....14:28:53.....  
 Thanks! They are as follows: Trumbull, CT 203-555-1212

.....14:32:53.....  
 <PUSHPAGE>?http://207.53.91.160:8080/biv/tx.dll?pushpage?%2Famazon%2Fshipping%2Easp%3FicDak%3D1</PUSHPAGE>

**2** Engaged **Send** **Clear**

**Lock Tab** ☐ In Visitor List

Status	ID	IP	Current Page	Date...	Cart T...	Site	Status	Page	Site	Current Page	Cum
<input type="checkbox"/>	8157...	2..	Books at Book...	31:54	0.00	31:54					
<input type="checkbox"/>	8147...	2..	Books at Book...	1:47:24	0.00	1:47:24					

For Help, press F1

**Figure 23j.**

815702357 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print E&E Discuss

Address <http://207.53.91.160:8080/bin/acc.dll?pushpage?%2Famazon%2Fshipping%2Easp%3FidData%3D1>

**Message from NetRep**

> You left out your City, State and Phone Number. If you send them to me, I can complete the form and send it back to you.

> Welcome to icontact.com! My name is Dan and I am here live to answer your questions.

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Type your message to the NetRep in this box.  
Hit your 'Enter' key or click 'Send' to send.

Thank You...that is correct!

Send Reset

CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH&FITNESS

**SEARCH**

All Products

**BROWSE**

- Books
  - Bestsellers, Computers...
  - Kids, Business...
- Music
  - New Releases, Top Sellers, Classical...
  - Soundtracks...
- Video
  - DVDs, Top Sellers, New Releases, Kids & Family...
- Auctions
  - Books, CDs, Photo Equipment...
  - Collectibles...
  - Electronics

**Shipping Information**

If you need to change any items, please go to the [shopping basket](#) to correct them.

If the order is correct, then please fill out the shipping instructions below and press the "Total" button. This will show you what your total cost (including tax and shipping) will be. If the total is satisfactory, then you'll be able to complete the purchase.

**Shipping Method**

**Shipping Address**

Name:

Street:

City:

State:  ZIP Code:

Phone:

Figure 23k.

Done Internet

815702357 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address <http://207.53.91.160:8080/vin/fox.dll?pushpage?%2Fenazon%2Fshopping%2Easp%3FicData%3D1> Go

### Message from NetRep

> You left out your City, State and Phone Number. If you send them to me, I can complete the form and send it back to you.

> Welcome to [icontact.com](http://www.icontact.com)! My name is Dan and I am here live to answer your questions.

### Your Message to NetRep

> Thank You...that is correct!

> Thanks! They are as follows: Trumbull, CT 203-555-1212

enabled by  
**icontact**  
icontact.com  
Patent Pending

# iBookCorner

BOOKS MUSIC

CHILDREN | FICTION | COMPUTERS | COOKING | HEALTH & FITNESS

## Purchase Confirmation

Your order number is  
PRCDPX52PUS12NH000JP450KD7

Please record it for referencing your order.

Thank you for your shopping at Books at  
[iBookCorner.com](http://iBookCorner.com).

If you want to continue shopping, simply return to the  
[Welcome page](#).

SEARCH

All Products  GO

BROWSE

- **Books**
  - Bestsellers...Computers...
  - Kids...Business...
- **Music**
  - New Releases...Top Sellers...Classical...
  - Soundtracks...
- **Video**
  - DVDs...Top Sellers...New Releases...Kids &

Done Internet

Figure 231.

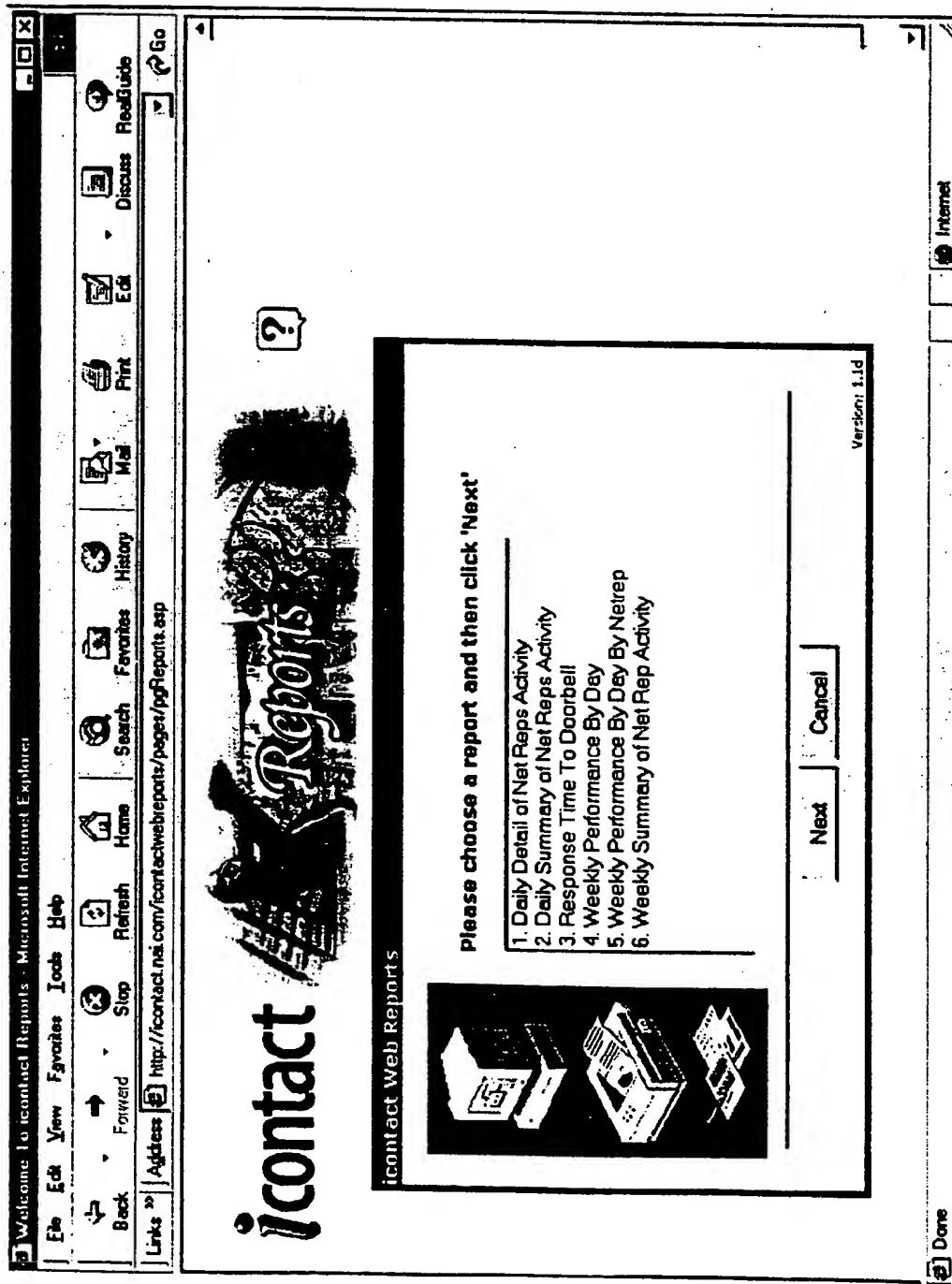


Fig. 6A

2-4